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# Physicians for Ontario

Too Many? Too Few?

For 2000 and Beyond



Report of the Fact Finder on Physician Resources in Ontario

**Dr. Robert McKendry** December 1999

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#### DEDICATION

This report is dedicated to the memory of my father, Dr. J.B. Ralph McKendry, who co-chaired the 1975 National Committee on Physician Manpower.

#### ACKNOWLEDGEMENTS

I am deeply appreciative of the expert advice and practical support provided by Dr. Mamoru Watanabe, Professor Emeritus at the University of Calgary, and Mr. Owen Adams, Director of Research at the Canadian Medical Association. Their breadth and depth of knowledge on physician workforce issues was critical to the successful completion of this report.

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Finally, I am deeply grateful to all the staff at the Policy and Planning Branch of the Ministry of Health and Long-Term Care who did everything possible to respond to my requests — cheerfully and quickly — without in any way compromising my independence in finding the facts and arriving at my own conclusions and recommendations.





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## Executive Summary

On July 23, 1999, Ontario's Minister of Health and Long-Term Care appointed a Fact Finding Commissioner to provide advice on the scope and nature of physician supply, mix and distribution issues. At the same time, she made a commitment to establish an Expert Panel to undertake longer term planning for Ontario's physician workforce. Over a period of less than four months, the Fact Finding Commissioner reviewed quantitative and qualitative data from existing physician resources reports, five physician databases, new survey material, and interviews with more than 150 people. As far as practicable, this report is an evidence-based study of the issues and possible solutions.

### **Is there a problem with physician services supply and/or mix and/or distribution in Ontario now? Will there be a problem in five or ten years' time?**

Based on the available evidence, the answer is "yes."

Given the growth in the population, the increase in physician workload, the changing attitude of physicians, the increasing number of women practising medicine, the number of closed practices and the growing number of communities looking for physicians, the current supply of physicians and particularly physician services (i.e., effective supply) is not sufficient to fully meet the health care needs of Ontarians.

With the aging of the current physician workforce, the decrease in the number of new graduates (which will be fully felt in the workforce beginning in the year 2000), the continued level of out-migration of Ontario physicians — and with no increase in new physicians — the current relative undersupply will become more severe in the future. By the year 2009, the number of physicians reaching retirement age will exceed the number of new graduates — if nothing is done to influence the factors that determine the overall size of the active physician pool.

The tight physician supply is exacerbating the province's efforts to deal with the maldistribution of physician services. Despite a number of effective, ministry-sponsored incentives and training initiatives — particularly the recruitment incentives developed by the Underserved Area Program, group practice models/alternative funding plans, and rural medicine initiatives sponsored by the province's existing medical schools — Ontario continues to have an increasingly serious problem with physician distribution.

The problem is not only growing, it is becoming more pervasive. As recently as five or six years ago, underservicing was only an issue in rural and remote communities in the north. Now many small and medium sized communities in southern Ontario are also having significant problems finding enough physicians. As of October 1999, 99 Ontario communities had been designated as underserved and were looking for a total of 534 physicians.

Ontario's efforts to ensure an adequate supply and distribution of physician services are further complicated by issues of skill mix. Based on workload data, waiting times and reported shortages, Ontario is currently facing a significant shortage in certain specialties, including general surgery, obstetrics/gynecology, pathology (laboratory medicine), anesthesiology, orthopedic surgery, psychiatry and family medicine.

In the near future, Ontario is also likely to experience significant shortages in several other surgical subspecialties, such as otolaryngology, ophthalmology, urology, neurosurgery and in radiology.

The reasons for the shortages vary, depending on the specialty. Factors that may keep new physicians from entering certain specialties include lack of exposure to the specialty in undergraduate education, lack of opportunities for re-entry training, the rigidity of the postgraduate training system, the growing desire among physicians to work in more "sociable" hours and lack of remuneration for certain services. Factors that affect the type and amount of services provided by physicians include practice patterns, remuneration, migration out of Ontario as well as the availability of other health care providers and facilities, such as nurses and operating rooms.

### **How many doctors does Ontario need? What kind?**

Making accurate long-term projections of physician supply is extremely challenging because most of the factors that affect supply (e.g., individual physician behaviours, policies of regulatory bodies) are often unpredictable or uncontrollable. Planning efforts are complicated by the difficulty of predicting future societal health care needs, changes in health care delivery or technological advances. They are also hindered by the variations in physician databases, which make it difficult to determine an accurate number of physicians for workforce planning.

At the current time, Ontario does not have a body or process dedicated to assessing societal health needs and developing the physician or health workforce plans to meet those needs. Given the challenges associated with physician workforce planning, the cost of physician services and the value that Ontarians place on their health care services, the province would benefit from having a strong capacity to plan and manage its health workforce.

In managing its physician workforce, Ontario must always balance the need for physician services with the principle of maintaining an affordable health care system. The right "balance" is a societal decision.

Ultimately, the citizens of Ontario must decide the level of physician services they need now and in the future. As individuals and as a society, we must understand and accept

that the best affordable care is not necessarily the same as the best care at any cost. It is important to note that Ontario is not alone in its current physician workforce problems. Other developing countries and other provinces are also experiencing physician supply shortages, and are taking concrete steps to address the problem. Quebec recently announced increases in enrolment for its medical schools, while the United Kingdom recently approved a plan to increase the size of its medical school enrolment by 20% (from 5,000 to 6,000 students) by the year 2005,<sup>1</sup> and to establish new medical schools.

Like these other jurisdictions, Ontario must look seriously at the most effective way to increase physician supply. In the view of the Fact Finder, the number of physicians needed for the entire province is probably fewer than 1,000 — or an increase of about 5%. (For a more detailed discussion of the Fact Finder's analysis and views, see Chapter 8.)

### **What should be done?**

Ontario must act now, or face a much more difficult situation with physician supply in five years' time.

In its effort to manage its physician workforce, Ontario must increase the supply of physicians in a way that addresses the province's long-term problems with distribution and more recent problems with mix.

Over the short term, Ontario will have to rely on incentives and support programs that will help attract and retain already trained physicians — including expatriate Canadians and international medical graduates (IMGs) — to small, rural and remote communities. The province must also develop more efficient and comprehensive models of care that incorporate other health professionals, such as nurse practitioners. It must look at ways to make more effective use of emerging technology to provide physician and other health services.

However, these short-term strategies do not address the factors that are most likely to lead physicians to voluntarily select underserved areas and remain in rural practice: attitude and education. Experience in Ontario and in other jurisdictions shows that physicians who grow up in rural areas, and those who do their medical training in rural areas are more likely to choose to practise in rural and remote communities.

In the longer term, Ontario must make a commitment to attracting students who are likely to choose rural practice and to providing the rural medical education experience they need to prepare them for practice. It must also make the necessary changes to increase the number of new physicians who enter specialties in short supply.

<sup>1</sup> Policy Futures for UK Health –  
1999 Technical Series – No. 8  
Workforce. Series editor:  
Charlotte Dargie.

## Summary of Recommendations

To address the current and future issue of physician supply, distribution and mix, the fact finder suggests the following strategy and recommendations, which are discussed in more detail in the full report. Some of these recommendations may be acted upon immediately. Some will require negotiation with the stakeholders involved. The Ministry of Health and Long-Term Care may refer some to the Expert Panel for more study.

### **1 Measure and Understand Societal Health Care Needs**

- 1.1.1 Ontario's health care system should develop Access Modelling pilots for core services in medical fields where consumers appear to have ongoing problems getting timely care. These disciplines include family medicine, anesthesiology, general surgery, obstetrics/gynecology, psychiatry and orthopedics.

### **2 Develop the capacity to plan for and manage a health workforce to meet societal health care needs**

#### DEVELOP A HEALTH WORKFORCE PLANNING STRUCTURE

- 2.1.1 The Ministry of Health and Long-Term Care should establish a permanent, independent Office of Health Workforce Policy and Planning to monitor and anticipate health care needs, and determine the most appropriate mix, supply and distribution of professional skills and services to meet those needs.

#### IMPROVE DATA

- 2.2.1 The Ministry of Health and Long-Term Care should ask OPHRDC to develop, with input from ICES, the ministry and the OMA a uniform physician database for the province.
- 2.2.2 The Office of Health Workforce Planning and Policy should work with the Ministry of Health and Long-Term Care to develop a model for projecting and monitoring the effective supply of physician services in the province.

### **3 Ensure an adequate supply of physician services to meet current and future health care needs**

#### **INCREASE SUPPLY**

- 3.1.1 The Ministry of Health and Long-Term Care should recruit/repatriate Canadian medical school graduates who have taken their postgraduate training in the United States and fund up to two years of postgraduate training in Ontario to enable these physicians to become eligible for CFPC or RCPSC certification.
- 3.1.2 The Ministry of Health and Long-Term Care should provide the necessary resources to allow the University of Toronto to increase the existing Ontario IMG program from 24 to 36 positions, beginning in the year 2000.

#### **TARGETED SUPPLY**

- 3.2.1 The Ministry of Health and Long-Term Care should work closely with the medical schools and the Professional Association of Internes and Residents (PAIRO) to reduce the number of recently certified physicians who pursue their careers outside Ontario.
- 3.2.2 The Ministry of Health and Long-Term Care should develop a pilot recruiting campaign that targets expatriate Canadian trained physicians now practising in the USA or other countries.
- 3.2.3 Underserved communities who are able to recruit IMGs should be aware and take advantage of the practice eligible route to certification offered by CFPC<sup>2</sup> and the Alternative Assessment and Evaluation program being pilot tested by the Royal College of Physicians and Surgeons of Canada (RCPSC)<sup>3</sup>.
- 3.2.4 The College of Physicians and Surgeons of Ontario (CPSO) should consider providing time-limited special licenses for IMGs sponsored by underserved communities who are currently practising elsewhere in Canada and who are pursuing the CFPC practice eligible route to certification.
- 3.2.5 The Ministry of Health and Long-Term Care should fund a limited number of postgraduate training positions for community-sponsored IMGs who do not qualify for the practice eligible route to licensure.

### **4 Encourage more effective distribution of physician services across the province.**

<sup>2</sup> Available only to IMGs in active practice in Canada.

<sup>3</sup> Available only to IMGs recruited from outside Canada or the USA.

#### **MAKE A COMMITMENT TO RURAL MEDICAL EDUCATION**

- 4.1.1 Ontario should increase undergraduate enrolment in the province's existing medical schools by approximately 10% (55 students) beginning in the year 2000 and allocate

these positions to those schools that give priority to training rural physicians.

- 4.1.2 Ontario should consider the advisability of creating a new medical school in rural medicine with a specific mission to attract students who are interested in working in the province's small, rural and remote communities.
- 4.1.3 The Ministry of Health and Long-Term Care, in collaboration with other stakeholders, should assess the potential benefits of a new school for rural medicine compared to other rural medical training options and prepare a report on or before July 2000.

#### MAKE EFFECTIVE USE OF RECRUITMENT/RETENTION INITIATIVES

- 4.2.1 The Ministry of Health and Long-Term Care should make greater use of group practice recruitment incentives that have proven effective in the north (e.g., community-sponsored contracts) and offer similar programs (with suitable modifications) in communities in the south.
- 4.2.2 The Ministry of Health and Long-Term Care should work with local communities and physicians to develop a comprehensive retention program, that would include the following features:
  - financial incentives for at least six years
  - long service leave
  - paid maternity leave
  - information technology grants.

#### STRENGTHEN THE UNDERSERVED AREA PROGRAM

- 4.3.1 The Ministry of Health and Long-Term Care should make the following changes to the Underserved Area Program (UAP) to increase its effectiveness:
  - rename the UAP the Appropriate Physician Services Supply Program (APSSP)
  - keep the current definition used to determine "underserved" communities, but simplify and streamline the application and evaluation process, and reduce the time required
  - hire three additional Community Development Officers.
- 4.3.2 The APSSP should ensure that the physicians already practising in underserved communities are actively involved in all efforts to recruit and retain new physicians, including initiatives designed to repatriate Ontario physicians (see recommendation #3.2.2).
- 4.3.3 The APSSP should provide realistic recruitment incentives that achieve the objectives.
- 4.3.4 The APSSP should work with Group 1 and Group 2 communities (as defined by the 1993 OMA/Government agreement) to ensure they provide community clinic facilities suitable for group practice either by fee-for-service physicians or physicians on alternative funding plans.



## **5 Adjust the mix of physician services available to meet current and future health care needs**

### **DEVELOP MORE OPPORTUNITIES WITHIN THE POSTGRADUATE TRAINING SYSTEM**

- 5.1.1 To provide more flexibility in the length and type of training available to physicians already working in rural and remote areas, the Ontario Medical Association and the Ministry of Health and Long-Term Care should work with the province's academic health science centres to develop a competitive, short-term CME Skills Acquisition Program.
- 5.1.2 To improve the physician mix over the longer term, and increase the number of family physicians with the skills to work in rural, remote areas, the Ministry of Health and Long-Term Care should provide the resources required to:
  - increase the number of entry level residency positions in family medicine in Sudbury and Thunder Bay by 25% (6 positions) from 24 to 30
  - increase the number of family medicine PGY3 positions in obstetrics, emergency medicine, anesthesiology, care of the elderly and psychiatry in Sudbury and Thunder Bay from 4 to 10.
- 5.1.3 To develop a corps of physicians with the skills to provide some specialty services in rural/remote areas, the Ministry of Health and Long-Term Care should expand the current re-entry training/return-of-service program from 25 to 40 positions.
- 5.1.4 The Ministry of Health and Long-Term Care and the OMA should revise the existing re-entry training/return-of-service program to reduce barriers and attract more applicants.
- 5.1.5 The Office of Health Workforce Policy and Planning should monitor the mix of specialty physician services in Ontario to determine the right number and mix of postgraduate positions to meet provincial health care needs.

### **PROVIDE APPROPRIATE INCENTIVES**

- 5.2.1 In the immediate short-term, the Ministry of Health and Long-Term Care should provide incentives that will increase the effective supply of emergency services, anesthesia, obstetrics, surgery and in-patient care in small, rural and remote communities.
- 5.2.2 The Ministry of Health and Long-Term Care, the Ontario Hospital Association and the Ontario Medical Association should develop a task force to review and refine the proposal<sup>4</sup> from the Ontario Society of Rural Physicians (October 1999) for an affordable, fair incentive plan for physician services in rural and remote communities.

### **DEVELOP DISCIPLINE-SPECIFIC STRATEGIES**

- 5.3.1 The Ministry of Health and Long-Term Care should review existing discipline-specific workforce reports for those disciplines with the most acute shortages (e.g., anesthesiology, family medicine, general surgery, laboratory medicine/pathology, obstetrics/gynecology, orthopedic surgery and psychiatry) to identify/implement the recommendations most likely to improve the mix of physician services.

<sup>4</sup> For a copy of the report, see the Society's web site: [www.csa.literarydocs/ON program.htm](http://www.csa.literarydocs/ON program.htm)

**6 Make effective use of other health care professionals to meet societal health care needs**

INTEGRATE NURSE PRACTITIONERS

- 6.1.1 Ontario should continue to explore effective ways to use nurse practitioners who have the training and scope of practice to work collaboratively with physicians and provide team care.
- 6.1.2 To encourage more effective working relationships among physicians and nurse practitioners, the Ministry of Health and Long-Term Care and the Ontario Medical Association should determine the most effective way to compensate physicians in a team care model (e.g., fee-for-service, blended payments, alternative payment plans).

**7 Make effective use of technology to meet societal health care needs**

EXPAND TELEMEDICINE

- 7.1.1 Ontario should continue to invest in infrastructure to support telemedicine applications which involve the use of co-ordinated electronic communications networks to transmit information and data and to provide appropriate clinical services.
- 7.1.2 To support the provision of telemedicine services, the Ministry of Health and Long-Term Care should consider a number of options for appropriately compensating physicians for services delivered, including working with the OMA to amend the current fee schedule.

EXTEND TELE-TRIAGE SERVICES

- 7.2.1 The Ministry of Health and Long-Term Care should consider extending tele-triage services to southern Ontario. A service similar to that being piloted in the north should be offered in the south.
- 7.2.2 Tele-triage services should be evaluated for their impact on access to care and on utilization of health services.

## Introduction

In the spring of 1999, the joint Ministry of Health and Long-Term Care/Ontario Medical Association Physician Services Committee brought to the Minister of Health and Long-Term Care's attention its growing concern about Ontario's physician supply. Given the aging of the physician workforce, the looming impact of the 1993 10% reduction in medical school enrolment, and Ontario's increasing and aging population, the Committee speculated that Ontario might not have enough doctors to meet current and future needs.

In response, the Minister of Health and Long-Term Care made a commitment to appoint a fact finder to identify the issues and to establish an expert panel to undertake longer-term physician workforce planning.

On July 23, 1999, the Minister, in consultation with the Ontario Medical Association, appointed Dr. Robert McKendry, a physician and clinical teacher at the Ottawa Hospital, as fact finding Commissioner, and asked him to:

- define the issues
- determine the scope of current physician supply, mix and distribution issues
- focus on supply and distribution of family physicians and some selected specialties
- issue a report and recommendations by the fall of 1999.

The following pages:

- list the goal and principles for physician workforce planning and the objectives of the fact finding exercise
- describe the methodology used
- summarize the findings and conclusions
- recommend the steps the Ministry of Health and Long-Term Care, the medical education system, the professions and the public can take to ensure that the people of Ontario have equitable access to the medical services they need.

# Physician Workforce Planning

## Goal and Principles

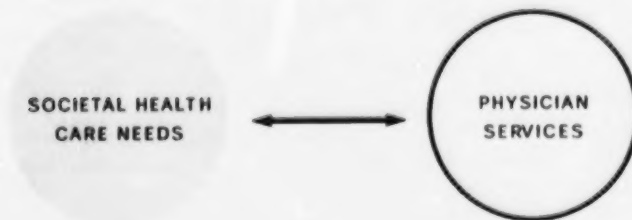
### Goal

The goal of physician workforce planning is to  
DEVELOP, MANAGE AND MAINTAIN THE PHYSICIAN WORKFORCE REQUIRED  
TO MEET SOCIETAL HEALTH CARE NEEDS.

FIGURE 1

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### Relationship Between Societal Health Needs and Physician Services



### Principles

Effective physician workforce planning is based on the following principles:

**NEEDS-BASED** Physician workforce planning should be based on societal needs.

**EVIDENCE-BASED** All decisions about physician workforce should be based on evidence, and any initiative designed to optimize physician supply, mix and distribution must be evaluated.

**EQUITABLE** All Ontario residents should have equitable access to quality physician services.

**AFFORDABLE** A sustainable supply of physician services should exist within an affordable health care system.

**APPROPRIATE** All health care professionals should provide appropriate services, and consumers should be encouraged to use all health care services, including physician services, appropriately.

**INTERDEPENDENT** Physicians are part of a team of health care providers with different skills, who work together to provide timely, appropriate care. The need for and supply of physicians, and their role in the health care system, will be affected by the number and mix of other health care providers, and by access to appropriate facilities, such as ambulatory centres and operating rooms.

**SELF-SUFFICIENT** Ontario should have access to an appropriate supply of trained physicians and other health professionals from within the province and country.

**NON-COERCIVE** Initiatives designed to resolve physician workforce issues and respond to health care needs should be non coercive, cost-effective and flexible.

**CO-ORDINATED** Regional physician workforce plans should be developed within a provincial framework and closely co-ordinated with provincial and national physician workforce initiatives.

**RESPONSIVE** The need for and supply of physicians in Ontario should be continually monitored so the province can anticipate and respond quickly to any changes in needs or supply.

#### **Fact Finding Objective**

The objective of the fact finding process is to answer two key questions:

**IS THERE A PROBLEM WITH PHYSICIAN SERVICES SUPPLY AND/OR MIX AND/OR DISTRIBUTION IN ONTARIO NOW? IF SO, WHAT SHOULD BE DONE?**

**WILL THERE BE A PROBLEM WITH PHYSICIAN SERVICES SUPPLY AND/OR MIX AND/OR DISTRIBUTION IN ONTARIO IN FIVE OR TEN YEARS TIME? IF SO, WHAT SHOULD BE DONE NOW?**



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## Fact Finder Data Sources

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### Existing Information

#### STUDIES AND REPORTS on:

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physician workforce planning/initiatives  
For a list of these publications, see Appendix 1

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methods to assess societal health care  
needs and the need for physician services

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government policies, programs and initia-  
tives designed to manage physician supply,  
mix and distribution.

#### PHYSICIAN DATA BASES that provide "head counts" of students, trainees and physi- cians, including:

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Canadian Medical Education Statistics,  
Association of Canadian Medical Colleges  
(ACMC) annual report on undergraduate  
medical students enrolled in Canadian med-  
ical schools

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Annual Census of Post-MD Trainees, pro-  
duced by the Canadian Post-MD Education  
Registry (CAPER)

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Southam Medical Database (SMDb) Supply,  
Distribution and Migration of Canadian  
Physicians, published by the Canadian  
Institute for Health Information (CIHI)

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Physicians in Ontario, an annual report pub-  
lished by the Ontario Physician Human  
Resources Data Centre (OPHRDC)

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the Physician Masterfile maintained by the  
Canadian Medical Association.

#### OTHER DATABASES that gather information on active, fee-for-service physicians and can be used to analyze physician workload, including:

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the National Physician Database (NPDB),  
Fulltime Equivalent Physicians, published by  
CIHI

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Supply of Physicians' Services in Ontario:  
Atlas Reports: Use of Health Services, pub-  
lished by the Institute for Clinical Evaluative  
Sciences in November 1999.

#### SURVEYS that attempt to assess physician workload and other possible indicators of the need for physicians, including:

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the Canadian Medical Association's annual  
Physician Resource Questionnaire (a regular  
survey of randomly selected physicians that  
request information on, among other things,  
the hours of work they spend on various  
activities)

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the Ontario Physician Human Resources  
Data Centre (OPHRDC) 1998 survey of  
wait times for appointments with a specialist  
and survey of non-specialist physicians in 14  
Ontario counties who are/are not taking new  
patients

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the Fraser Institute report, *Waiting Your  
Turn: Hospital Waiting Lists in Canada*,  
which is a survey of waiting lists/times for  
different hospital services.

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### New Information

#### FACT FINDING QUESTIONNAIRES, which were sent to the following organizations:

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the Ontario Medical Association (OMA)  
sections

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the Royal College of Physicians and  
Surgeons of Canada (RCPSC) (sub) spe-  
cialty societies

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Ontario's five Academic Health Science  
Centres (AHSCs)

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the Ontario Academies of Medicine.

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INTERVIEWS with more than 150 people, repre-  
senting physicians, nurse practitioners,  
health care planners, consumers, hospital  
and clinic administrators, and other stake-  
holders (key informants) in Ontario's six  
health planning regions who provided valu-  
able expertise, evidence, opinions and  
advice on physician workforce issues. For a  
list of key informants, see Appendix 2.

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UNSOLICITED SUBMISSIONS, letters and  
phone calls from people and organizations  
who are intensely interested in physician  
workforce issues.

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# Finding the Facts

## Methodology

What are the most effective, accurate ways to assess physician supply, mix and distribution? In the past, planners have usually used the number of physicians, the physician to population ratio and geographic distribution to assess the adequacy of physician supply. For this report, every effort has been made to find planning tools which are broader, more inclusive and accurate to assess whether Ontario has enough doctors and whether those doctors have the right mix of skills and are distributed appropriately to meet societal health care needs.

The analysis included reviewing existing information as well as requesting and compiling new information (see opposite).

### Scope of the Fact Finding Exercise

Given the relatively short time-frame (less than four months) to gather and analyze information, this report focuses on providing data and recommendations on many but not all physician workforce issues in Ontario.

Some issues that have an impact on physician workforce planning require more time and attention than this exercise allowed and should receive further careful study, including:

- the health care needs of the urban poor and urban immigrant populations
- the health care needs of the aboriginal population
- the role of health professionals other than nurse practitioners (NPs) in providing health care and relieving the pressure on physician services, particularly in underserved areas and domains of practice
- issues specific to the approximately 3,500 full-time academic physicians in the AHSCs, who provide health care services in addition to their teaching and research functions. These issues include the use of clinical revenues to subsidize academic work, the drop in the number of residents available to help with in-patient care and the resource uncertainties created by hospital/health care restructuring
- detailed workforce plans for subspecialties. The reasons for undersupply differ for each specialty, as do the solutions. Most (sub)specialties experiencing problems have developed thoughtful provincial and/or national workforce reports with recommendations, which deserve careful review.



## Context for Physician Workforce Planning

Any attempt to assess Ontario's physician workforce must take into account the broader context and history of physician resource planning. Canadian governments have long struggled with the challenge of predicting the need for physicians and managing physician resources to meet those needs. The ability of each province to forecast the number of doctors it needs is complicated by many factors, including:

- physicians are a national resource: physicians trained in one province may choose to practise in another
- Canadian physicians are in demand in other countries and there are no restrictions on them leaving the country to practise
- physician practice patterns (i.e., the number of working hours per week and the range of services provided) change over time
- changes in population health can affect the need for physician skills (e.g., aging population, new diseases)
- medical advances/new technologies can affect the mix of physicians required
- the long training cycle (six to ten years) makes timely supply/mix adjustment difficult.

Traditionally, Canada's supply of physicians has come from two main sources: physicians trained and licensed in Canada and physicians trained in foreign medical schools (international medical graduates or IMGs) and licensed to work in Canada. Over the past 35 years, Canada and the provinces have made significant efforts both to become self-sufficient in physicians and to develop the right number and mix of physicians.<sup>1</sup>

### Nationally

In the 1960s, Canada had 12 medical schools and produced about 800 new doctors each year. In 1964, the Hall Commission Report projected a dramatic increase in Canada's population. Even with the preferential immigration status given to IMGs, the Commission predicted that Canada would have a serious shortfall in physicians, and recommended new medical schools to prepare more physicians. As a result, four new medical schools were established.

By 1969, Canada was producing about 1600 graduates each year (75% of the new doctors in Canada) and continuing to recruit international medical graduates. However, the population growth anticipated in the first Hall Commission did not occur. In 1975, the National Committee on Physician Manpower endorsed the goal of self-reliance for future physician needs and eliminated the preferred status for IMGs, which reduced the number coming to Canada. In 1980, the second Hall Commission recommended a reduction in the number of medical students.

By 1984, the Federal-Provincial Advisory Committee on Health Manpower forecast a 11.7% surplus in physicians by the year 2000 and recommended a 17% cut in undergraduate enrolment and a 20% reduction in graduate training. However, these recommendations were not implemented.

<sup>1</sup> For a good summary of the recent history of physician workforce planning in Ontario and Canada, see Shortt S. 1999 *The Doctor Dilemma: The Evolution Over the 1990s*.

In 1991, the Conference of Deputy Ministers of Health commissioned the Barer Stoddart report, *Toward Integrated Medical Resource Policies for Canada*. Based on this report, the Ministers of Health developed the National Action Plan for Physician Resources Management (1992) which included a number of strategies to stabilize physician supply in relation to the size/needs of the population, including: reducing undergraduate medical school enrolment; maintaining a 50:50 specialist: FP/GP ratio; reducing the number of postgraduate medical education positions; reducing the number of visa trainees; reducing Canada's reliance on IMGs; changing the payment system for physicians; and adopting new models to organize and deliver physician services that could reduce the number of physicians required to provide care. Subsequently:

- undergraduate medical enrolment in Canada dropped 10% between 1993 and 1997, and is down 18% from its peak in 1980
- the number of physicians per 100,000 population dropped from 190 in 1993 to 185 in 1998.

### **In Ontario**

Ontario endorsed the National Action Plan and, in 1993/94, reduced first year enrolment by 12% or 74 positions. All the reductions in undergraduate positions were taken from the province's largest medical school, the University of Toronto.

The reduction in undergraduates is only now beginning to be felt in the postgraduate training system. As part of the National Action Strategy, the province provides enough entry level postgraduate positions each year to match the size of Ontario's graduating undergraduate class.<sup>2</sup> Ontario also provides 24 additional entry level postgraduate positions for international medical graduates,<sup>3</sup> and 25 postgraduate positions for GP/FPs practising in Ontario who want to re-enter the postgraduate training system to take specialist training and who agree to provide return-of-service in an underserved community.

The full impact of the reduction in the undergraduate class size and changes in the postgraduate training system on the number and mix of practising physicians will not be felt until the year 2000 and beyond.

At the same time that Ontario has been reducing medical school enrolment, the province has also taken a number of important steps to understand and resolve physician workforce issues:

- The Provincial Coordinating Committee on Community and Academic Health Science Centre Relations (1993-97) looked at the problems of planning, underservicing and mix of physician skills and recommended various tools and methodology for physician workforce planning as well as strategies to recruit and retain physicians, and strategies for re-entry and continuing education, especially in rural and remote areas.
- The Scott Report recommended strategies to address the lack of physician coverage in emergency departments in small, rural hospitals.

<sup>2</sup> Under the strategy, each province agrees to provide enough postgraduate positions for its own undergraduates. This ensures enough spaces in the country for all Canadian undergraduate medical students.

<sup>3</sup> The Ontario International Medical Graduate (IMG) program (originally the Pre-Internship Program) was established in 1986 to allow a certain number of IMGs to get the training they need to be eligible for licensure in Ontario.

- The Ontario Medical Association (OMA) and the Professional Association of Internes and Residents of Ontario (PAIRO) have also recommended strategies to address the issue of physician distribution.

Since the early 1990s, the province has implemented a number of innovative initiatives that have been effective in encouraging physicians to practise in underserved communities (particularly in the North), including:

- rural and northern training programs for family physicians and specialists
- limited re-entry programs for physicians who agree to provide a return-of-service in underserved communities
- comprehensive incentive programs to recruit physicians to rural and remote communities
- new models of practice, including primary care reform, community sponsored contracts, and the Northern Group Funding Plans.

More recently, Ontario has introduced the nurse practitioner program and a telehealth pilot project as other means to improve access to care.

## Where Are We Now?

Predicting physician supply requirements is a complex, inexact science. In the 1980s, the country struggled to deal with a perceived "oversupply" of physicians — the result of planning and policies in the 1960s. In 1999, just six years after a nation-wide effort to manage physician resources, several provinces are once again concerned about a possible physician shortage. In fact, Quebec is increasing enrolment in its medical schools. The problem is not confined to Ontario or Canada. The United Kingdom has approved a plan to increase the size of its medical school enrolment by 20% (from 5,000 to 6,000 students) by the year 2005<sup>4</sup> and to open new medical schools. Based on its population of about 60 million, the ratio of first year medical students in the United Kingdom (approximately 1:10,000 population) will be approximately twice that of Canada (approximately 1:20,000 population).

Why are so many jurisdictions struggling with issues of physician supply? It appears that previous efforts to manage physician resources have suffered from a lack of longitudinal planning and specific planning horizons when planners recheck original assumptions against the current changing environment, and continually modify their plans based on new information.

Past efforts to manage physician supply have also suffered from the tendency to be selective in implementing planning recommendations: for example, reducing undergraduate enrolment but not always instituting other complementary measures (such as different payment plans and different delivery models).

<sup>4</sup> Policy Futures for UK Health — 1999  
Technical Series — No. 8 Workforce.  
Series editor: Charlotte Dargie.

## Societal Health Care Needs

### Measuring Health Care Needs

Physician workforce planning should be based on societal health care needs. However, methods to accurately measure health care needs and translate those measures into the most appropriate mix, number and distribution of health care providers are still being developed.

In the past, planners have used a number of direct and indirect measures as markers of need, including utilization of health services, standards of care, waiting lists and population-based health measures. Most of these indicators have been difficult to translate into requirements for health care services.

While waiting lists alone are not a suitable indicator of need, taking a rigorous approach to monitoring access to care (i.e., setting standards and then carefully compiling and monitoring data on access times) can provide an effective way to assess timely access to health care. This approach, known as Access Modelling, helps to identify ways to make more effective use of health care resources, including physician workforce, to meet societal health care needs.

Access Modelling<sup>5</sup> is based on having an expert panel:

- identify the key services or procedures used frequently (i.e., core services) in a given specialty
- specify the minimum acceptable level of access to these services or procedures for each condition
- develop a template for minimal access standards for core services in that specialty.<sup>6</sup>

Each specialty then measures its current levels of access to core services against the pre-defined standards. Any region that fails to meet the standard would identify reasons for the deficiency. Is it too few physicians? Is it too few nurses? Is it not enough operating rooms? Is it lack of communication within the health care system? Is it a structural problem?

<sup>5</sup> For more discussion of Access Modelling, see Appendices B and C. An Interim Guide for Physician Resources Planning in Ontario, the Provincial Coordinating Committee on Community and Academic Health Science Centre Relations (PCCCAR) Expert Panel on Physician Resources (1996).

<sup>6</sup> The minimum standards for access will vary depending on acuity, location (e.g., urban, rural, remote) and other factors.

Access Modelling has been used effectively by the Cardiac Care Network in Ontario and by radiation oncology in British Columbia. It has also been used successfully to triage patients in emergency departments in Ontario. Patients who need these services should benefit from this approach.

## Factors Affecting Future Societal Health Care Needs

It's difficult to predict — especially about the future. —Yogi Berra

While Access Modelling may give the health care system a needs-based means to manage patients who need care, it is not able to predict society's future health care needs. Some factors that will have a direct impact on the future societal need for physician services include:

- demographics, including age, sex and population growth — the aging "baby boomers" will increase society's need for services associated with aging
- economic conditions (at both the macro and micro level) — health and wealth are strongly correlated; while wealthy people tend to be healthier, wealth may also be associated with an increase in demand for services and demand for more timely service
- new diseases, new investigations and new therapies — any developments that improve diagnosis or therapy can increase or decrease both the need for services and their costs
- health promotion and disease prevention programs — although they are intended to decrease health needs in the longer term, they may actually increase demand for physician services over the short to medium term
- the "privatization" of health care — the delisting of some services and the not-listing of others may encourage some physicians to work mainly outside the public health insurance plan, thereby diminishing the effective supply of publicly insured physician services.

The relative influence of each of these factors is difficult to predict with any useful level of accuracy even for a five-year time horizon. As the brief history of physician workforce highlighted, even predicting the rate of population growth over the short term is difficult.

## If We Cannot Predict the Future, Can We Manage or Shape It?

In trying to determine whether Ontario has adequate physician services, some attention must be paid to the way in which those services are used. It is difficult to assess the extent to which people use physician services when they don't really need them. We do know that a significant number of people go to emergency departments for care they

could and should get from a primary care physician or a nurse practitioner. Physicians themselves report an increase in demand for their services due to the "medicalization" of social problems.

Several social/environmental trends have also contributed to more frequent use of physician services, including:

- greater public awareness and concern about health, disease and treatments (through the media and the Internet)
- pharmaceutical company advertising that encourages people to see their doctor and ask about products and treatments
- disease prevention programs that increase the demand for preventive care and monitoring services
- greater awareness of environmental illnesses, such as environmental hypersensitivity, sick building syndrome and Gulf War syndrome
- increasing demand for physician services from third parties (e.g., employers, insurance companies).

To make the most effective use of physician services, consumers must be able to distinguish between health care needs that require a doctor's care and those that do not. This requires education and support, as well as the effective use of other health care professionals (e.g., nurse practitioners), creative use of technology and different ways of delivering health information and care.

Ontario is now involved in a pilot tele-triage initiative designed to improve access to care and reduce unnecessary physician/emergency room visits. A call centre, located in North Bay, is a regional service that provides a bilingual program staffed 24 hours a day, 7 days a week by registered nurses. The two-year pilot will be evaluated for its effectiveness in giving people quick answers to their health care questions, directing them to the appropriate level of care, and ensuring better access to care.

SUMMARY

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**Measuring/Predicting Societal Health Care Needs**

Ontario has an inconsistent approach to measuring societal health care needs. Of the models available, Access Modelling appears to be the most practical in assessing access to services. It is relatively non-technical, easily understood by both providers and consumers, and already in limited use in Ontario.

Any effort to predict future societal health care needs must take into account a range of factors, including demographics, economics, developments in health care and broader social/environmental trends.

The health care system has a responsibility to manage the demand for, as well as the supply of, physician services. Tele-triage services have the potential to reduce unnecessary physician visits and redirect patients to the most appropriate alternatives. Informed consumers are more likely to make more appropriate use of physician services.

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## The Supply of Physician Services in Ontario

The supply of physicians available to meet societal health care needs at any given time is a function of those entering and exiting active practice.

Counting the number of physicians in practice, determining the type of medicine they practice, and learning where they work gives a simple picture of physician supply, mix and distribution. This is the approach that has been used in the past with physician:population ratios. However, that type of calculation assumes that each physician is working full-time in his/her field. It does not take into account the many complex factors that affect how efficiently physicians work, or the range of services they provide.

Do physician numbers, in themselves, tell us whether there is or will be a physician under or over supply? No. They do not give us enough information. Physician numbers are merely benchmarks that tell us where we are, where we have come from and where we may go, if current trends continue. To determine whether Ontario has a supply problem now or will have one in the future, it is important to assess not simply supply, but the "effective supply" of physician services in Ontario.

EFFECTIVE SUPPLY is the actual amount and type of physician services available to meet societal health care needs. It is physician productivity, calculated by analyzing the collective work habits of individual physicians (how much do they work? what kind of services do they provide?). Effective supply takes into account the nature of the services provided and overall productivity (i.e., throughput). An ideal effective supply is the volume, type and location of physician services to meet societal healthcare needs.

By looking at physician numbers, demographics, migration patterns and workload, we can begin to understand the effective supply of physician services in Ontario.

### The Data

Four different databases track the number of physicians in Ontario. However, the numbers vary from one database to another,<sup>7</sup> and this variation is due in part to:

#### DIFFERENT ASSUMPTIONS, inclusion criteria and methodology

- the Southam Medical Database (SMDb) excludes semi-retired and military physicians, and categorizes physicians by their qualifications and certifications
- the Ontario Physician Human Resources Data Centre (OPHRDC) includes semi-retired

<sup>7</sup> For more discussion of the differences among the databases see Appendices E and F. An Interim Guide for Physician Resources Planning in Ontario, the Provincial Coordinating Committee on Community and Academic Health Science Centre Relations (PCCAR) Expert Panel on Physician Resources (1996).



and part-time physicians, excludes physicians over age 85, and uses certification but adjusts the category based on relevant information provided by individual physicians

- the Canadian Medical Association (CMA) Masterfile includes semi-retired physicians, excludes physicians over age 80, and (like SMDB) categorizes physicians by their qualifications and certifications
- the Institute for Clinical Evaluative Sciences (ICES) database is primarily concerned with FTE (full-time equivalent) counts, but does report physician "head counts," defining a physician as anyone who bills OHIP<sup>8</sup>, and categorizes them by specialty based on certification, adjusted by their predominant functional billing practice.

#### DIFFERENT DEFINITIONS OF PRACTICE

- SMDB, OPHRDC and CMA include physicians in clinical and non-clinical practice, while ICES (which is based on billing OHIP) is based on physicians in clinical practice.

#### DIFFERENT REPORTING PERIODS

- SMDB, OPHRDC and CMA databases report the physician count at a specific date (Dec. 31 or Jan. 1), while ICES reports by fiscal year.

#### THE RELIANCE ON OTHER DATABASES

- some databases rely on data sources, such as the College of Physicians and Surgeons of Ontario and OHIP billing records, and these data may not be consistent in the way they identify retirement dates, when retirement actually occurs, or when new physicians are added.

#### MATURITY OF THE DATA BASE

- OPHRDC is a relatively young database, and it cautions readers that the gradual evolution and sophistication of its methods may be responsible for the changes noted from year to year.

Given these data variations, it is difficult to identify an accurate number of physicians for workforce planning. Furthermore, analyzing trends over time should be done with care and caution. Valid trends can only be established when the data for the years being analyzed are based on consistent methodology and standard criteria.

#### How Important is the Data?

Data is a campfire around which organizations huddle for heat and light. The irony is in the fact that neither the heat nor the light yield a solution. The solution emerges out of the huddling (i.e., through the organizational interaction in a discussion forum).

- Ministry of Health and Long-Term Care, anonymous

<sup>8</sup> Based on data from the Ministry of Health and Long-Term OHIP database.

The tables, graphs and charts that follow focus on quantitative data. However, the qualitative data gathered from comments in correspondence and more than 150 interviews are also vitally important in assessing the issues and developing solutions.

### How Many Physicians does Ontario Have Now?

The following table lists the total number of physicians in Ontario from 1993 to 1998, according to each of the four databases. Three of the four databases — SMDB, CMA and ICES — show a decline in total number of physicians in Ontario that began in 1994 and continued through 1997.

TABLE 1

#### Number of Physicians in Ontario from Four Databases

|             |        | 1993   | 1994   | 1995   | 1996   | 1997   | 1998    |
|-------------|--------|--------|--------|--------|--------|--------|---------|
| FP/GP       | OPHRDC | 9,341  | 9,548  | 9,695  | 9,869  | 9,843  | 9,696*  |
|             | SMDB   | 10,765 | 10,359 | 10,230 | 9,903  | 9,773  | 9,802   |
|             | CMA    | 10,627 | 10,871 | 10,448 | 10,135 | 10,215 | 10,184  |
|             | ICES   | 10,953 | 10,686 | 10,553 | 10,464 | 10,386 |         |
| SPECIALISTS | OPHRDC | 9,483  | 9,844  | 10,115 | 10,184 | 10,290 | 10,292* |
|             | SMDB   | 10,034 | 10,222 | 10,217 | 10,313 | 10,429 | 10,667  |
|             | CMA    | 10,093 | 10,493 | 10,517 | 10,653 | 10,386 | 10,622  |
|             | ICES   | 10,466 | 10,230 | 10,224 | 10,430 | 10,418 |         |
| TOTAL       | OPHRDC | 18,824 | 19,392 | 19,810 | 20,053 | 20,133 | 19,988* |
|             | SMDB   | 20,799 | 20,581 | 20,447 | 20,216 | 20,202 | 20,469  |
|             | CMA    | 20,720 | 21,364 | 20,999 | 20,827 | 20,638 | 20,838  |
|             | ICES   | 21,419 | 20,916 | 20,777 | 20,894 | 20,804 |         |

\*Midterm revision based on a different data source

OPHRDC = Ontario Physician Human Resources Data Centre, Physicians in Ontario, Annual Reports 1993-1997 and Midterm Update 1998

SMDB = Southern Medical Database, Canadian Institute for Health Information, Annual Reports

CMA = Canadian Medical Association, Health Facts and personal communication

ICES = Head counts reported in Institute for Clinical Evaluative Sciences, Supply of Physicians' Services in Ontario: ICES Atlas Reports, 1999

The same table shows the number of family physicians and specialists in Ontario over the same period.

The "head counts" reported by SMDB, CMA and ICES for GP/FPs are reasonably consistent. OPHRDC's numbers are lower in 1993 and 1994 than the other three databases, but much closer or more consistent in 1996 and 1997. Three of the four databases show a decline in the number of GP/FPS since 1993.

FIGURE 2

**Physicians per Population in Ontario (1993 to 1997)**

From four databases

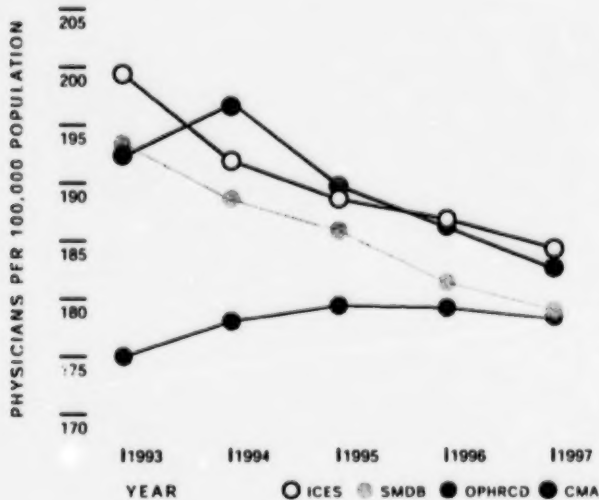
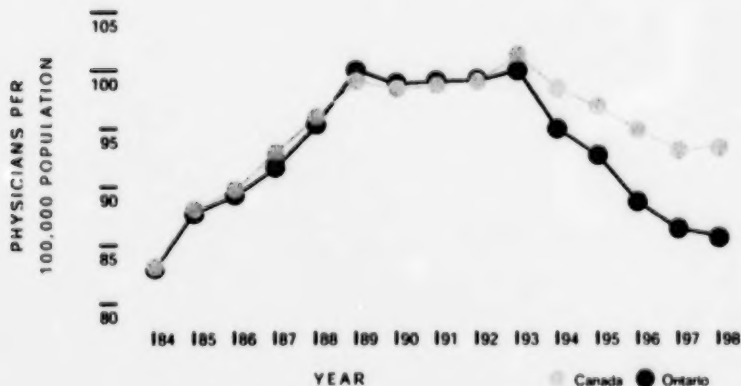


FIGURE 3

**Number of GP/FPs per Population in Canada and Ontario 1984 to 1998**

Source: SMDB, CIHI

Three of the four databases are also fairly consistent in their view of the number of specialists in Ontario. Once again, OPHRDC's numbers are lower than the other databases in 1993 and 1994, and more consistent in 1996 and 1997. Three of four databases indicate that, between 1993 and 1998, the number of specialists increased.

**Trends in Physician to Population Ratios**

The change in physician numbers from 1993 to 1998 may not necessarily be striking but its impact is magnified by increases in population growth. As the figure 2 illustrates, three of the four databases report a declining trend in physician to population ratios for total physicians. The trend is similar for family physicians, but less dramatic for specialists.

The change (decrease) in the number of family physicians per 100,000 population has been greater in Ontario than for Canada as a whole.

**How many of Ontario's doctors are in clinical practice?**

Simply knowing the ratio of physicians to the population is not enough, because not all of Ontario's physicians work full time in clinical practice. For example:

- approximately 3,500 academic physicians (or 15% of Ontario's physician workforce) are involved in research, teaching and academic administration and, therefore, spend only part of their time providing clinical care
- other physicians work primarily in administrative positions and/or private industry.

This means that physician to population ratios tend to overstate the effective supply of clinical care.

The data above does not permit us to determine the subset of physicians who are actively practising medicine. However two databases attempt to measure physicians who are in fee-for-service (clinical) practice:

- The National Physician Data Base (NPDB) counts fee-for-service physicians who received payment from a provincial health insurance plan at least once during the fiscal year. Although this database plans to collect data on physicians on alternative payment plans (non-fee-for-service physicians), the current data set excludes salaried physicians, physicians who specialize in radiology and laboratory medicine (who tend to be on salary) and physicians in non-clinical activities (i.e., teaching, research and administration).
- The ICES study defines an active physician as one who bills OHIP at least \$35,000 in price adjusted dollars in a given fiscal year. Depending on the year, this threshold eliminates 15 to 20% of the total number of GP/FPs (see table 2) and 12 to 17% of specialists. However, the number of physicians below that \$35,000 threshold has been decreasing since 1993/94.

TABLE 2

**Physicians Below the \$35,000 Threshold ICES Database**

|         | GP/FP | % TOTAL | SPECIALISTS | % TOTAL |
|---------|-------|---------|-------------|---------|
| 1991/92 | 1856  | 18.50   | 1662        | 16.45   |
| 1992/93 | 1982  | 19.04   | 1754        | 16.90   |
| 1993/94 | 2278  | 20.80   | 1675        | 16.00   |
| 1994/95 | 1984  | 18.57   | 1415        | 13.83   |
| 1995/96 | 1802  | 17.08   | 1345        | 13.16   |
| 1996/97 | 1666  | 15.92   | 1437        | 13.78   |
| 1997/98 | 1551  | 14.93   | 1305        | 12.53   |

Information extrapolated from Institute for Clinical Evaluative Sciences, Supply of Physicians' Services in Ontario: ICES Atlas Reports, 1999

There is a significant difference between the fee-for-service GP/FPs physicians reported by NPDB and the active GP/FPs reported by ICES (see table 3). The number reported by NPDB is much higher, perhaps because that database does not have a cutoff threshold. However, the total number of active physicians recorded by ICES is similar to the total number of NPDB physicians who bill at least once per quarter (as opposed to once per year).

The difference in the two datasets appears to relate to physician categorization as an FP/GP or specialist, with each being higher in one category than the other.

TABLE 3

### Number of Physicians in Clinical Practice in Ontario

| NUMBER OF PHYSICIANS IN THE YEARS |                                | 1993   | 1994   | 1995   |
|-----------------------------------|--------------------------------|--------|--------|--------|
| GP/FP                             | NPDB-FFS                       | 11,149 | 10,844 | 10,720 |
|                                   | NPDB-at least once per quarter | 9,408  | 9,644  | 9,469  |
|                                   | ICES-Active                    | 8,675  | 8,702  | 8,751  |
| SPECIALISTS                       | NPDB-FFS                       | 8,862  | 8,968  | 9,020  |
|                                   | NPDB-at least once per quarter | 7,998  | 8,016  | 8,085  |
|                                   | ICES-Active                    | 8,791  | 8,815  | 8,879  |
| TOTAL                             | NPDB-FFS                       | 20,011 | 19,812 | 19,740 |
|                                   | NPDB-at least once per quarter | 17,406 | 17,660 | 17,554 |
|                                   | ICES-Active                    | 17,466 | 17,517 | 17,630 |

NPDB-FFS = Fee for Service Physicians reported in National Physician Database, Canadian Institute for Health Information, Full-time Equivalent Physicians Report, 1993/94 to 1995/96

NPDB-at least once per quarter = FFS physicians receiving payments at least once per quarter, from Canadian Institute for Health Information, Average Payment per Physician Report, Canada 1993/94 to 1995/96

ICES-active = Active Physicians identified by Institute for Clinical Evaluative Sciences, Supply of Physicians' Services in Ontario: ICES Atlas Reports, 1999

## Barometers of Adequacy of Effective Supply

Another way to assess the adequacy of the supply of physician services is to consider the perspective of those trying to access care.

### A Societal Perspective

The public will be less concerned about the overall number and distribution of physicians than about their ability to find a doctor when they need one. In its 1998 midterm report, the OPHRDC included the results of its survey of open and closed primary care practices in 14 Ontario counties. Of the 1,389 physicians contacted, 873 (62.9%) were family physicians. According to the survey:

- 66.8% of family physicians were not taking new patients; of the remainder, 23.8% were accepting new patients<sup>9</sup>
- in 5 of the 14 counties, more than 80% of physicians were not taking new patients
- looking at differences between rural and urban physicians, about 70.5% of urban practices were closed and 19.2% were open; about 56.1% of rural practices were closed and 37.2% were open.

<sup>9</sup> Another 82 (9.4%) do not normally schedule appointments, were on leave of absence or did not answer

A survey of the Academies of Medicine in Ontario summarizes the number of calls per week received from people looking for physician services now (September 1999) and two years ago, and the number of physicians accepting new patients now and two years ago. This appears to indicate that citizens living in certain parts of the province are having an increasingly difficult time finding a primary care physician.

TABLE 4

**Ontarians Looking for Physicians/Physicians Accepting New Patients**  
Results of an Ontario Academies of Medicine Survey

| Academy                                   | # of Calls per week<br>(September 99)  | Average # of Calls per<br>week over past 2 years | # of doctors accepting<br>new patients<br>(September 99)                    | # of doctors accepting<br>new patients 2 years ago |
|---|--|--|---|--|
| Essex County<br>Medical Society           | 150-200  | Situation has gotten<br>worse recently           | 2 new doctors   | 0-4  |
| London Academy of<br>Medicine             | 215  |  | 8 (conditions apply*)   | 12-15  |
| St. Thomas Elgin                          | Only a recording saying<br>there are no physicians<br>accepting patients           |  | Currently, no doctors   | Maximum 3 over 2 years                             |
| Kitchener/Waterloo<br>Academy of Medicine | 2-4 (some may contact the<br>hospital directly)                                    | 60-80  | 2-3   | 0-2  |
| Wallington County<br>Medical Society      | Service not offered  | Service not offered                              | Service not offered   | Service not offered                                |
| Greater Niagara<br>Medical Society        | Have a recording that no<br>doctors are available                                  | 25-50  | None  | None   |
| Lincoln County<br>Academy of Medicine     | Have a recording with<br>names and numbers of<br>doctors accepting<br>new patients | 25-60  | 2   | 2-5  |
| Hamilton Academy of<br>Medicine           | 150  | Problem is worsening                             | 52<br>(conditions may apply*)   | 40-50<br>(conditions may apply*)                   |
| Ottawa Academy of<br>Medicine             | 350-400  |  | 31— only 16 in core area<br>(service restricted to<br>academy members only) | 130  |
| Algoma West<br>Academy of Medicine        | No calls — People know no<br>new patients are accepted                             |  | None  | None   |

\* SOME CONDITIONS on which doctors are or are not accepting patients:

Age (i.e., young families) • Doctor only operates a part-time practice • Only accepting patients new to the community (i.e., do not want patients with an existing physician) •

Patients requesting female physicians only • Depends on degree of medical problems • Disability/compensation: won't accept patients with significant medical issues into

an already busy practice • Won't accept patients living outside a specific geographic area • Gender

### A Community Perspective

In Fact Finder interviews conducted in six relatively underserved parts of the province, interviewees often expressed concern and sometimes alarm at the lack of physician services — both GP/FP and specialist services — in their area.

As of October 1999, the 99 Ontario communities designated by the Ministry of Health and Long-Term Care as "underserved" were looking for a total of 534 physicians (422 GP/FPs and 112 specialists). Some had been trying to recruit for more than 12 months. The number of physicians required represents a significant increase over past years, and may indicate a more systemic supply problem rather than simply a distribution problem. For a fuller discussion of different perspectives on physician supply issues, see Appendix 3.

## Factors that Affect the Effective Supply of Physician Services

The effective supply of physician services available at any time in Ontario is influenced by a number of factors, including:

- workload/lifestyle issues
- gender
- migration (the number of physicians who leave the province to work elsewhere)
- age
- the number of physicians leaving active practice due to retirement and death
- the number of new physicians entering practice.

### Workload/Quality of Life Issues

Times have changed and doctor's goals, expectations and work habits have altered. In the 70s and 80s, I and my colleagues worked twelve plus hours per day, often seven days a week. This was considered noble, dedicated and definitely sacrificial. Younger doctors have discovered that quality of life, dedication to their families and a healthy lifestyle are more important. —Peter J. Ranson, M.D., Amprior, Ontario.

Based on activity ratios<sup>10</sup> extrapolated from the NPDB database, and the CMA's Physician Resource Questionnaire (PRQ),<sup>11</sup> physicians are working longer hours and workload appears to be increasing. For a full discussion of workload and the supporting data, see companion document, *Assessing Physician Workload*.

Compared with the Canadian average in 1995/96, Ontario physicians had a higher activity ratio on average than physicians in other parts of Canada.

Higher workload levels may indicate a systemic problem with physician supply, particularly given the changing physician attitudes towards work.

<sup>10</sup> An activity ratio, which is based on the full-time equivalent (FTE) measure (based on billing data) of all physicians divided by the number of fee-for service (FFS) physicians, serve as a rough indicator of average workload per physician. For more discussion on the FTE calculation, see companion document, *Assessing Physician Workload*.

<sup>11</sup> The CMA conducts regular surveys of randomly selected physicians (both members and non-members) that request information on the hours they spend on various activities. In recent years response rates have been around 42% with results accurate within +/- 1.8% 19 times out of 20.



FIGURE 4

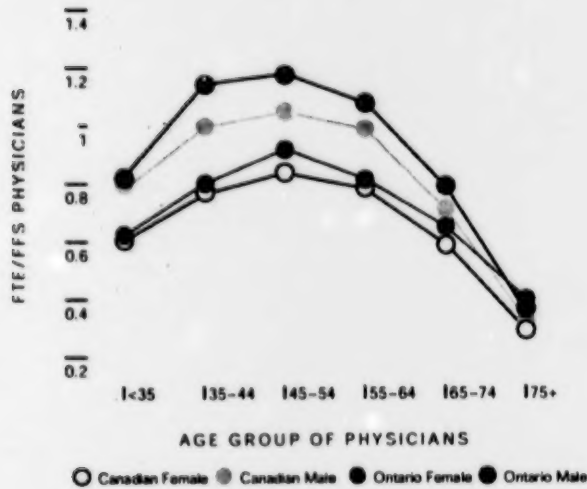
**Activity Ratios of FFS Physicians** Canada and Ontario, 1995/96

FIGURE 5

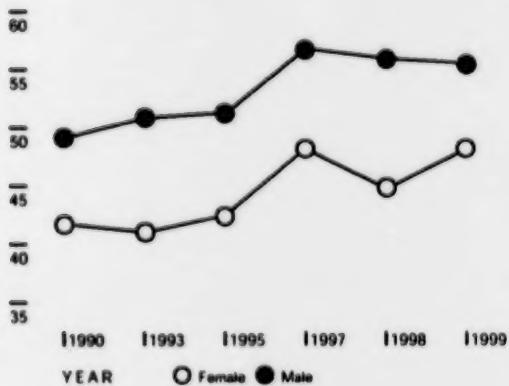
**Trends in Self-Reported Hours of Work** 1990 to 1999



Figure 5 graphs the self-reported working hours over the past few years, and illustrates that Ontario physicians are working harder than in the past, and that these higher workloads have been consistent for the past three years. Many physicians would prefer to work less and to confine their work to more "sociable" hours. Working to capacity or beyond may not be in the best interests of physicians or their patients, and may not be the ideal way to ensure a long-term effective supply.

TABLE 5

**Self-reported Working Hours** Ontario and Canada**CMA PRQ — SELF-REPORTED WORKING HOURS**

|                            |        | CANADA          | ONTARIO |
|----------------------------|--------|-----------------|---------|
|                            |        | MEAN HOURS/WEEK |         |
| <b>ALL PHYSICIANS</b>      | FEMALE | 48.2            | 50.2    |
|                            | MALE   | 55.5            | 56.5    |
| <b>GP/FP</b>               | FEMALE | 46.1            | 48.0    |
|                            | MALE   | 55.2            | 55.3    |
| <b>MEDICAL SPECIALIST</b>  | FEMALE | 51.1            | 53.8    |
|                            | MALE   | 55.0            | 56.7    |
| <b>SURGICAL SPECIALIST</b> | FEMALE | 53.0            | 53.1    |
|                            | MALE   | 57.6            | 59.4    |
| <b>RURAL</b>               |        | 51.0            | 53.4    |
| <b>URBAN</b>               |        | 53.7            | 54.9    |
| <b>CANADIAN MD</b>         |        | 53.0            | 54.2    |
| <b>FOREIGN MD</b>          |        | 53.6            | 56.1    |
| <b>SINGLE</b>              | FEMALE | 50.3            | 52.3    |
|                            | MALE   | 52.6            | 53.8    |
| <b>MARRIED</b>             | FEMALE | 49.1            | 49.7    |
|                            | MALE   | 56.7            | 56.     |
| <b>THREE CHILDREN</b>      | FEMALE | 45.3            | 41.2    |
|                            | MALE   | 57.7            | 58.6    |

### Gender

The effective supply of physician services varies depending on the gender of practising physicians. The activity ratios, computed from NPDB, of male and female physicians by age group indicate that women physicians have lower activity ratios than males at all age groups.

The CMA's PRQ identified similar gender differences (see table 5):

- men report working longer hours than women (56.5 hours a week compared to 50.2 hours)
- unmarried female physicians work longer hours than their peers who are married; single males, on the other hand, work shorter hours than married males
- the workload of women physicians is more likely to be affected by the number of children at home: the hours worked per week drops as the number of children at home increases (up to three) while the opposite is true for male physicians.

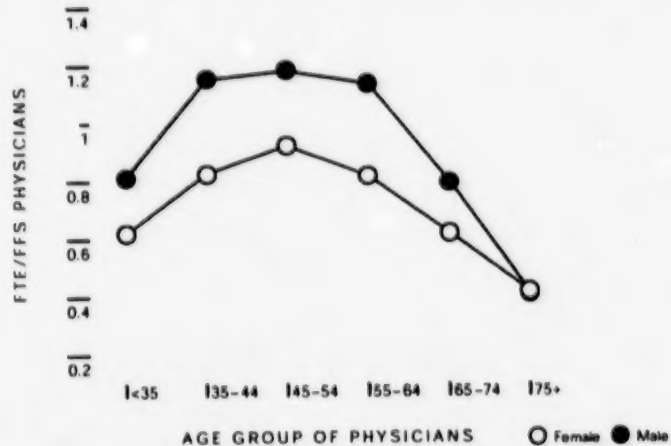
Female physicians are also more likely to interrupt their practice for maternity leave and more likely to work part-time.

About 27% of Ontario's practising physicians are women and, given that 43% of the students who entered medical school in Ontario in 1997/98 were women, the percentage of female practising physicians will increase significantly over the next few years. Figure 7 summarizes the changing gender mix among Canadian medical students.

With the steady increase in the proportion of female physicians, Ontario will need more doctors to provide the same amount of service.

FIGURE 6

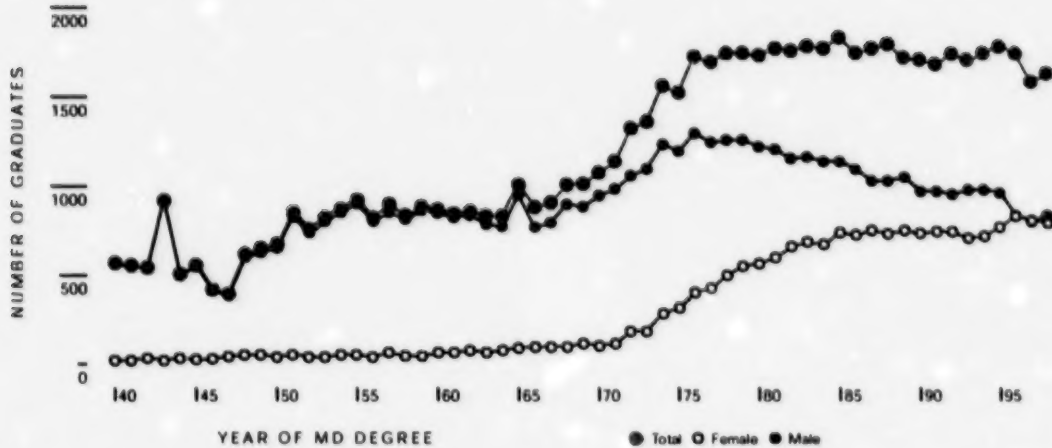
### Activity Ratio of FFS Physicians in Ontario by Age and Gender



Source: NPDB, CIHI

FIGURE 7

**Changing Gender Mix in the Medical Training Program**

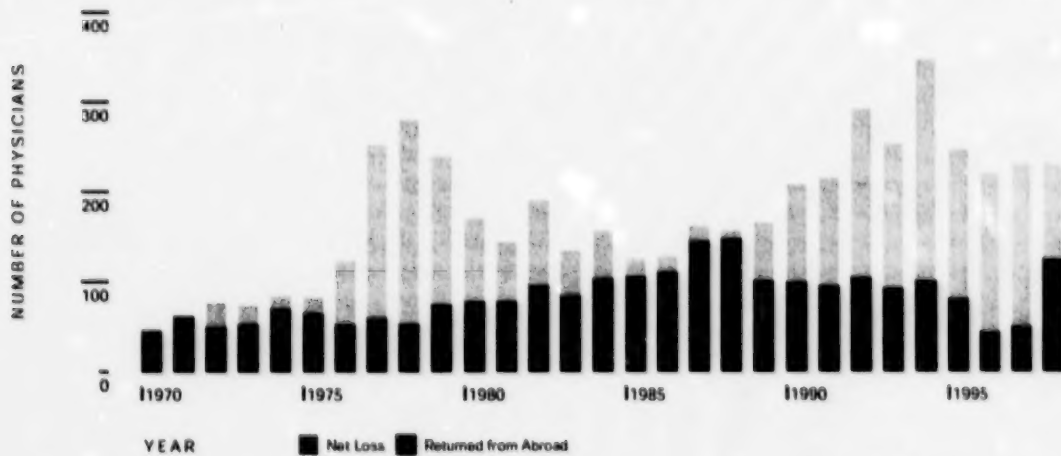


Source: Association of Canadian Medical Colleges (ACMC)

FIGURE 8

**Net Impact of Physician Migration**

Ontario Physicians Who Moved Abroad and Who Returned from Abroad 1970/80



Source: SMDB, CIHI

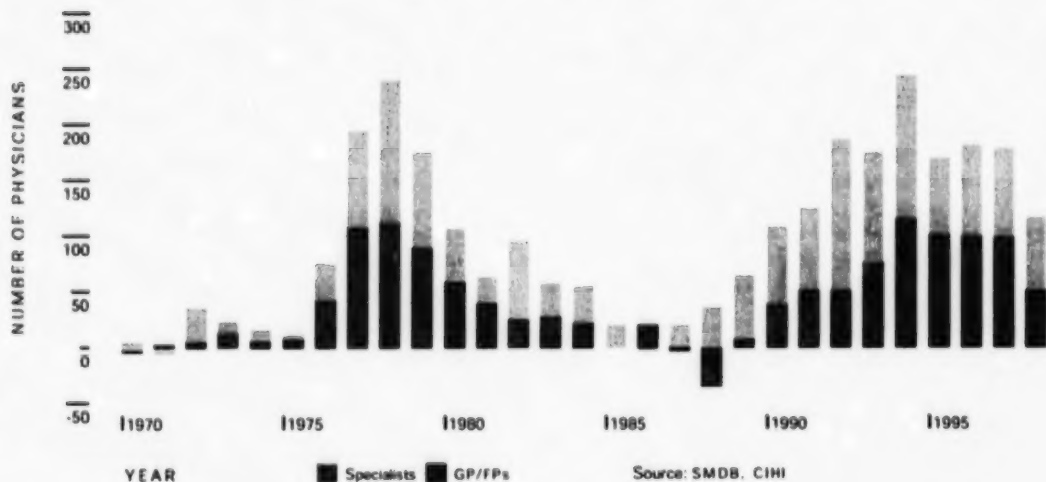
### Physician Migration

Ontario has a net loss of between 100 and 200<sup>12</sup> physicians each year to other countries (mainly the United States). That net loss is a number equal to more than 20% of the province's annual medical school graduates. Most of the physicians who leave are between 35 and 45 years old (just approaching their most productive working years). The physicians are usually drawn by the perception of better professional working conditions in the USA<sup>13</sup>. This trend, if it continues or increases, will have a significant impact on the supply of physician services in Ontario.

A significant proportion of the physicians who leave Ontario to practice are family physicians, although the majority are specialists.

FIGURE 9

**Net Loss of Ontario GP/FPs and Specialists To International Migration 1970 to 1998**



### Age

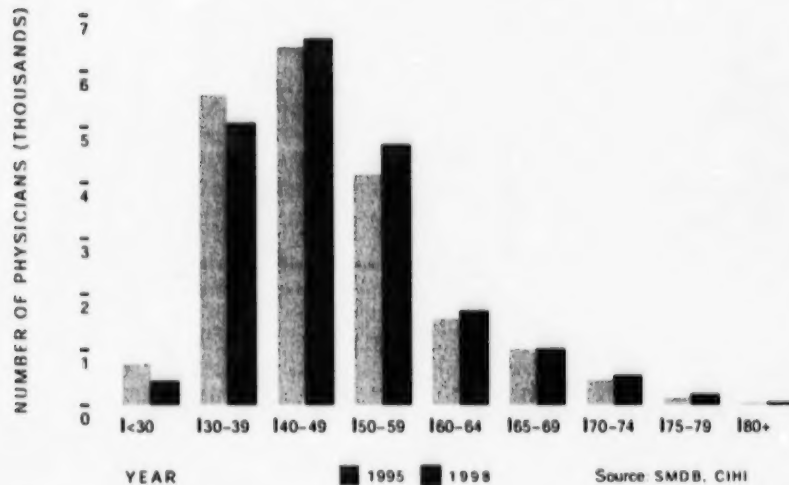
The effective supply of physician services is also a function of age. Both male and female physicians between the ages of 45 and 54 tend to work more intensively than younger and older physicians. (See figure 4.)

As the following figure illustrates, the physician workforce in Ontario is aging.

<sup>12</sup> This figure represents the net loss: the number who leave each year less the number who return to Ontario.

<sup>13</sup> McKendry RJ, Wells GA, Dale P, Adams O, Buskie L, Strachan J, Fior L. Factors influencing the Emigration of Physicians from Canada to the United States. *CMAJ* (154)(2).

FIGURE 10

**The Aging Physician Work Force in Ontario**

Because older physicians (over age 54) work fewer hours than younger physicians, a large concentration of physicians in the older age group will reduce effective physician supply.

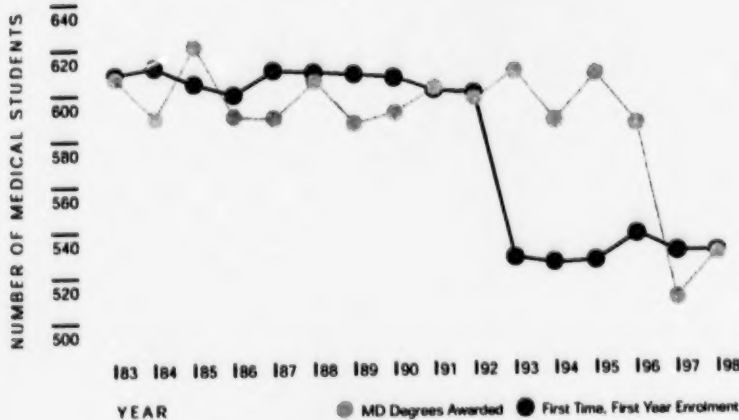
**Retirement**

Most physicians work for about 35 to 40 years after receiving their MD degrees before retiring. Based on age and years of practice, a significant number of Ontario physicians could retire over the next few years. In the past, many physicians have continued to work into their 70s. However, that trend may be changing. Ontario physicians now in their 50s have had more opportunities (i.e., through RRSPs and investments) to prepare for retirement and may be less likely to continue working for financial reasons.

**New Graduates of Canadian Medical Schools**

The future supply of physicians will depend, to a great extent, on the new doctors produced through the Canadian training system. Medical enrolment in Canada has been declining since 1983, although first year enrolment in Ontario was relatively stable (range 599-614) until 1993, when Ontario implemented a 12% reduction in first year positions.

FIGURE 11

**Ontario Medical School Enrolment 1983 to 1998**

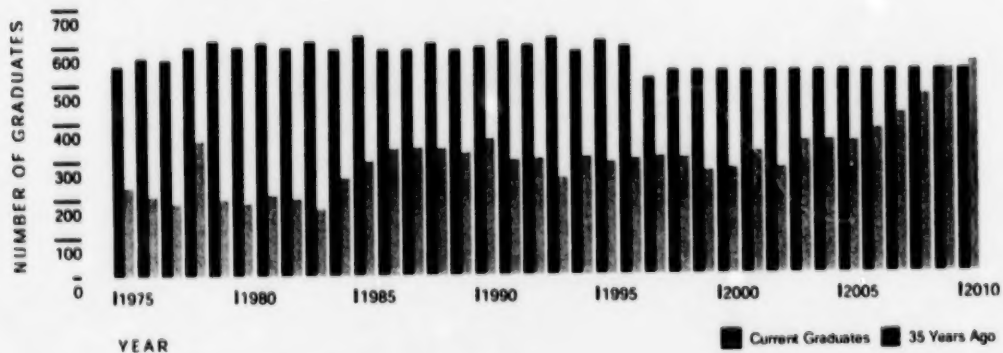
Source: Association of Canadian Medical Colleges (ACMC)

Beginning in 1997, Ontario's medical schools began producing fewer graduates for postgraduate training. If enrolment policies remain unchanged, it appears that Ontario will not produce enough new physicians to replace those who will retire.

The following chart compares the number of graduates of Ontario medical schools who are likely to retire (based on 35 years after the date of medical school graduation) with the number of new graduates. With no increase in medical school class size after the year 2000, the number of Ontario physicians retiring will exceed the number of new graduates by the year 2009<sup>14</sup>.

14 Adapted from an analysis of E. Ryan in the ACMC Forum. This figure uses Ontario data rather than national data used in the original.

FIGURE 12

**New Graduates Compared to MDs at Retirement Age (35 years post-graduation) in Ontario**

Source: Association of Canadian Medical Colleges (ACMC)

### International Medical Graduates

Ontario's other potential source of future physicians are international medical graduates (IMGs): physicians who receive their undergraduate medical training in foreign medical schools. Recruiting IMGs is a relatively fast way to increase the number of physicians, because they have already completed their undergraduate training.

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**To be licensed to practice medicine in Ontario, IMGs can take one of three routes:**

■ **POSTGRADUATE TRAINING** The Ontario IMG Program, which began as the Pre-Internship Program in 1987, provides 24 competitive postgraduate training positions. Approximately 200 applicants each year complete a written and Objective Structured Clinical Examination (OSCE). The 24 candidates with the highest exam scores take a 36 to 48 week evaluation and training period at the University of Toronto before entering postgraduate training in either family medicine or specialty training programs that lead to certification and licensure.

■ **PRACTICE ELIGIBLE ROUTE** The Royal College of Physician and Surgeons of Canada recently (Sept/99) announced a limited route to the Specialist Evaluating Examination for IMGs in three undersupplied specialties (anesthesiology, obstetrics/gynecology, psychiatry) who meet certain criteria (i.e., hold specialty certification in another jurisdiction other than Canada or the USA, be practising that specialty currently and for the past five years, and have passed the Medical Council of Canada (MCC) Evaluating Examination and the MCC Qualifying Examination, part 1). In addition, the region/community in need of the IMG's services must

demonstrate that there are no RCPSC certified specialists to meet that need. Successful candidates must also take the Specialist Evaluating Examination, part I and part II.<sup>15</sup>

The College of Family Physicians of Canada also offers a defined practice-eligible route to certification for physicians who meet certain criteria (i.e., has at least five years of practice in Canada or elsewhere, is an active member of the CFPC, has been in practice in Canada for at least one year immediately preceding the certification examination application, and has a license to practise in Canada). However, IMGs may find it difficult to meet the last two CFPC criteria.

■ **EXCEPTIONAL REGISTRATION FOR LICENSURE** The Registration Committee of the College of Physicians and Surgeons of Ontario reviews and grants some IMG requests for exceptional certificates of registration (both restricted and unrestricted or independent licenses).

The current routes to licensure are designed to ensure a single standard for licensure in Ontario, thereby safeguarding quality of care.

15 RCPSC. Sept. 1999. Report of the Task Force on Alternative Assessment and Evaluation of Physicians for Specialist Recognition.

Through the Ontario IMG Program at the University of Toronto, about 24 IMGs graduate each year. Between 1994 and 1998, CPSO issued 694 certificates to IMGs. The vast majority of these IMGs were fully qualified, and only a small minority received exceptional certificates. For example, in 1999, CPSO issued only 25 exceptional certificates to IMGs for restricted or unrestricted practice.

### Physicians Entering Practice in Ontario

It is possible to estimate the number of new physicians entering practice — regardless of where they are trained — by looking at the number of new practice licenses issued each year. In Ontario, this number dropped steadily and substantially between 1991 and 1998.

TABLE 6

### New Practice Licenses Issued in Ontario

| GRADUATES OF              | 1991        | 1998       |
|---------------------------|-------------|------------|
| ONTARIO ONLY              | 595 (48%)   | 389 (56%)  |
| OTHER CANADIAN            | 435 (31%)   | 202 (30%)  |
| IMG (including USA @ <1%) | 214 (21%)   | 99 (14%)   |
| <b>TOTAL</b>              | <b>1252</b> | <b>690</b> |

Source: College of Physicians and Surgeons of Ontario

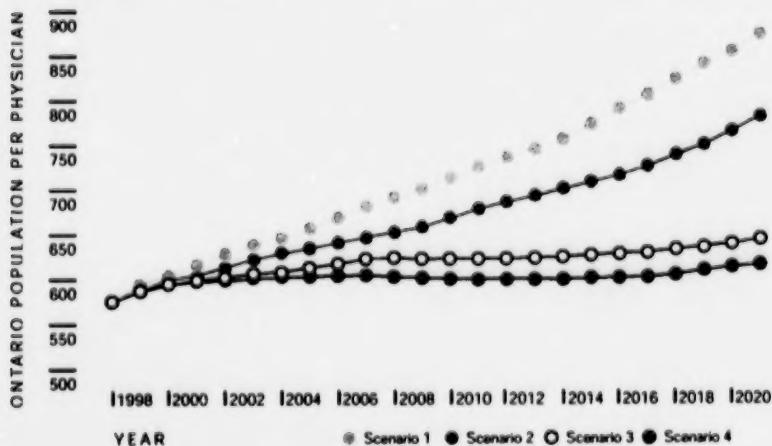
### Models for Projecting Future Physician Supply

Using eight variables (death, retirement, emigration, postgraduate exits, returns from abroad, immigration, net inter-provincial migration and population growth) the C.M.A. Physician Resource Evaluation Template (PRET) can be used to make projections about future population to physician ratios in Ontario.

Figure 13 illustrates the impact of four possible scenarios on population to physician ratios:

FIGURE 13

### Projected Population per Ontario Physician





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**Scenario 1**

Status quo with medium population growth<sup>16</sup>

Status Quo is defined as:

- DEATH recent annual average by age and sex
- RETIREMENT recent annual average by age/sex/broad specialty
- EMIGRATION 235 per year
- POSTGRADUATE EXITS based on recent average number of postgraduate exits with known cuts incorporated. This includes those leaving postgraduate training who received undergraduate training in Ontario plus those who received it from elsewhere in Canada. The number is estimated at 561 for the year 2000
- RETURNS from abroad are set at 75 per year
- IMMIGRATION those physicians with pre-arranged employment is set at 4 per year
- NET INTER-PROVINCIAL MIGRATION set at zero (i.e., no net gain or loss)

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**Scenario 2**

Status quo with low population growth

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**Scenario 3**

15% reduction in emigration (to 200 per year), 20% increase in postgraduate exits beginning in 2007 (674 per year), increase in returns from abroad (to 120 per year), increase in IMGs (to 50 per year), low population growth

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**Scenario 4**

20% increase in postgraduate exits beginning in 2007 (674 per year), increase in IMGs (to 200 per year), low population growth.

Even with low population growth, Ontario will see a steady, significant increase in population to physician ratio, if nothing is done to influence the factors that affect physician supply. Based on these assumptions, it will take an increase of at least 20% in new graduates plus an increase in IMGs entering postgraduate training to compensate for the number of Ontario physicians leaving practice, to keep pace with population growth, and to hold population to physician ratios below 650.

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**Planning for the Future**

Physician workforce planning is extremely challenging and complex. It must take into account factors that will or should affect physician supply (e.g., changes in societal health care needs, changes in practice, technological advances, and the pressure to ensure that health care services are affordable). It must also consider the interdependency between effective supply of physician services and other services (e.g., nurses, technicians, other professionals) and facilities (e.g., clinics, hospitals, operating rooms, diagnostic tests and tools).

<sup>16</sup> All population growth assumptions are based on Statistics Canada forecasts.

At the current time, there is no one group or body (other than the Physicians Services Committee) responsible for ongoing, long-term physician resource planning. This situation makes it difficult to monitor the factors that affect physician supply or make adjustments to reduce or increase supply. This is of particular concern as training new physicians to meet future needs takes six to 10 years. Ontario needs some consistent means to continuously fine-tune physician supply based on societal needs.

#### SUMMARY

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##### **Does Ontario have a Physician Services Supply Problem Now? Will It Have One in the Future?**

Given the growing population, the increase in physician workload and the longer working hours, the changing attitude of physicians, the increasing number of women practising medicine, the number of closed practices and the growing number of communities looking for physicians, the current supply of physicians and particularly physician services (i.e., effective supply) is not sufficient to fully meet the health care needs of Ontarians.

With the current level of migration of Ontario physicians, the aging of the current physician workforce, the decrease in the number of new graduates (which will not be fully felt in the workforce until the year 2000), the current relative undersupply will become more severe in the future — if nothing is done to influence the factors that determine the overall size of the active physician pool.

Making accurate long-term projections of physician supply is extremely challenging because most of the factors that affect supply (e.g., individual physician behaviours, policies of regulatory bodies and responses of physicians to them) are often unpredictable or uncontrollable. Planning efforts are complicated by the difficulty of predicting future societal health care needs, changes in health care delivery or technological advances.

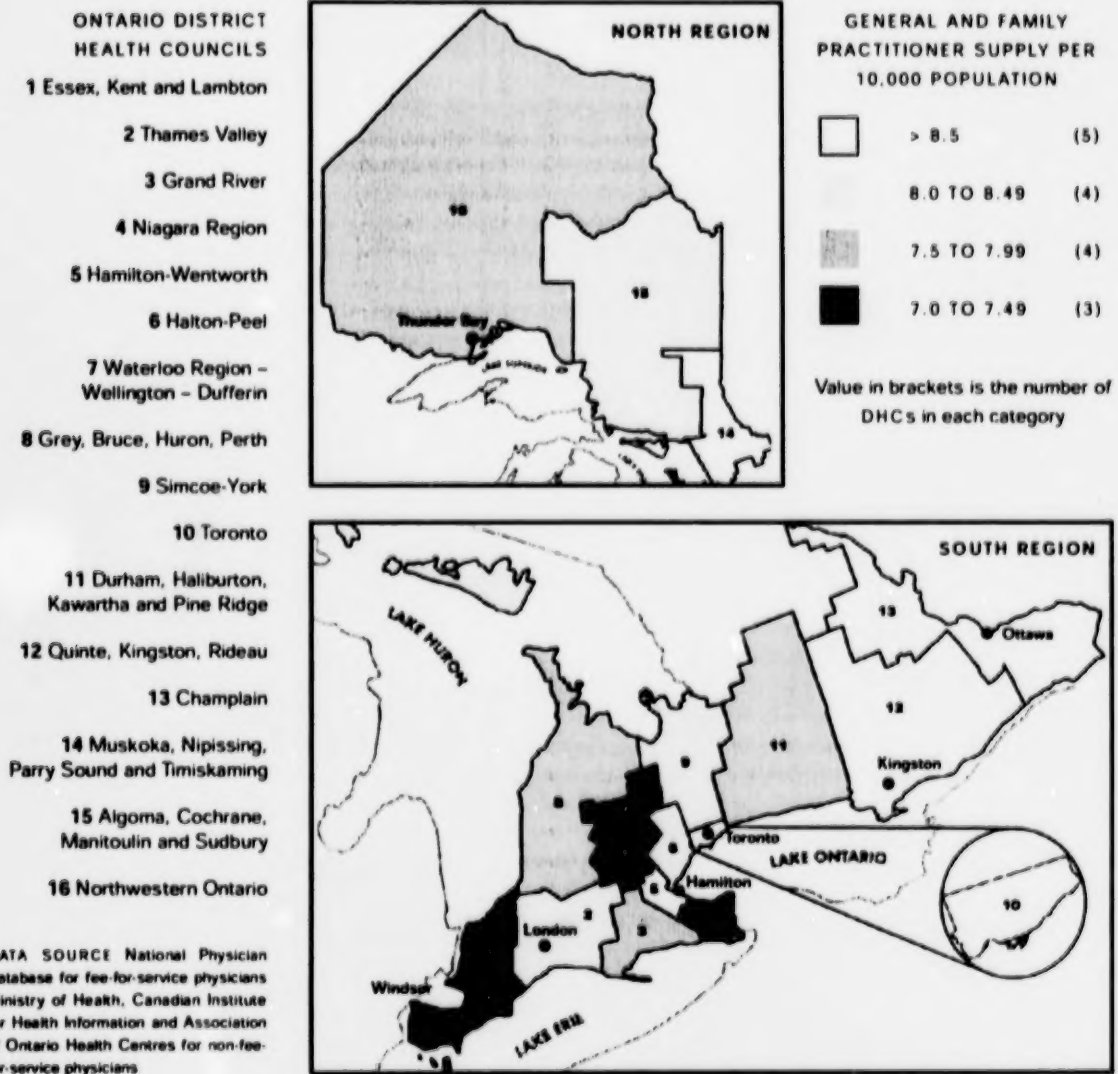
The situation is not helped by the variations in physician databases, which make it difficult to determine a precise and accurate number of physicians for workforce planning. The physician databases that exist now were created for different purposes, use different inclusion criteria and rely on different methodologies. They tend to measure and track the number of physicians, rather than the effective supply of physician services — which depends on the collective productivity of individual physicians and their range of competencies and is a more useful measure for workforce planning. The purpose and limitations of the databases must be taken into account when interpreting data on physician supply.

Given the challenges associated with physician workforce planning, the cost of physician services and the value that Ontarians place on their health care services, the province would benefit from having a provincial body responsible for continually monitoring societal health care needs and developing the physicians' services to meet those needs.

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FIGURE 14

**Underserved Areas in Ontario**



Source of maps: Chan B. Atlas Reports: Use of Health Services. Report #1: Supply of Physicians Services in Ontario. Institute for Clinical Evaluative Sciences. November 1999.

## The Distribution of Physician Services in Ontario

The distribution of physicians is a function of where Ontario's physicians choose to practise their skills.

Ontario has had long-standing issues with the distribution of physician services across the province<sup>17</sup>. Historically, smaller remote communities in the north have had difficulty recruiting and retaining physicians. More recently, small and medium sized communities and rural areas in southern, central and eastern Ontario are experiencing the same kind of problems.

As of October 1999, 99 Ontario communities had been officially designated as underserved and were looking for a total of 422 GP/FPs, including 2 GP/surgeons, 13 GP/anesthetists, and 112 specialists, including 7 radiologists, 25 psychiatrists, 8 general surgeons, 7 anesthetists and 6 pediatricians<sup>18</sup>. In particular, smaller communities have trouble finding the right number and mix of physicians to provide emergency on-call services, care for in-hospital patients, anesthesia services, obstetrics and general surgery.

It appears that chronic maldistribution is being exacerbated by the relatively tight supply of physicians. Supply and distribution are linked: physicians migrate from the most remote sites to areas with more favourable working and lifestyle conditions when these locations become undersupplied. Without quick effective action, the situation in many communities could become critical.

### Where are the Problems?

The ICES Atlas Report No. 1, Supply of Physicians' Services in Ontario<sup>19</sup>, summarizes the variation in physician to population ratio by district health council regions. The situation is particularly severe in three regions in the south (see map opposite).

At present, the absolute number of underserved communities in southern Ontario is greater than the number in the north, and the number of physicians needed in the south is also much larger than the number needed in the north.

However, the growing need in the south exacerbates the problem in the north. It appears that southern and northern communities will be competing for the same physicians. Communities report that they are finding themselves in an increasingly competitive environment, with larger, more affluent communities able to offer more

<sup>17</sup> See the ICES report for a detailed description of physician to population ratios across the province.

<sup>18</sup> October / November / December LADAU

<sup>19</sup> B.Chan, 1999.

attractive incentive packages.

The definition for "rural" in Ontario is "a community of less than 10,000 population more than 80 kms from a community of at least 50,000 people (group 1) or at least 50 kms from a community of 50,000 people (group 2). However, not all rural communities are similar. Some are more "rural" or more "remote" than others. Because of these differences, Ontario might benefit from a "rurality index" that could be used to rank communities based on considering "rural/remote" as a continuous variable. Leduc<sup>20</sup> has suggested the following variables for determining "rurality":

- distance from nearest advanced referral centre
- distance from nearest basic referral centre (or advanced referral centre if closer)
- drawing population
- number of general practitioners
- number of specialists
- presence of an acute care hospital

A subcommittee of the Physician Services Committee has made excellent progress in developing a rurality index for Ontario. With refinements, this index should become a practical tool for policy and planning.

Not all of the province's physician distribution problems are geographic. Some reflect the challenges of meeting certain population health needs (e.g., providing consistent, adequate physician services to Franco-Ontarians, the urban poor, and to immigrant and First Nation populations). Francophones and First Nations people make up a small percentage of medical school enrolment in Ontario. Without special training, physicians may not have the cultural sensitivity or linguistic skills to practice effectively in many eastern and northern Ontario communities. The University of Ottawa has the lead in recruiting Franco Ontarians to undergraduate and postgraduate training positions. Presently, there is no comprehensive program in Ontario to develop an aboriginal physician workforce.

### **Factors that Affect Geographic Distribution**

The problem of physician distribution in Ontario has been studied extensively. A number of factors affect a physician's decision not to practice in a rural or remote community, including:

- lifestyle issues (e.g., lack of job opportunities for spouse, climate, distance, lack of opportunities for ongoing education and career development)
- professional working conditions (e.g., call schedules, lack of adequate remuneration — particularly for in-hospital and call services — problems getting vacation coverage, lack of professional back-up).

20 Leduc E. 1997. Defining Rurality: A General Practice Rurality Index for Canada. Canadian Journal of Rural Medicine Vol. 2(3).

Education and training also play a key role in developing physicians with the competencies required for rural practice. Physicians trained in large urban centres are less likely to develop the knowledge, skills and attitudes they need to practise in smaller, more remote settings. Conversely, medical students raised in rural areas are significantly more likely to practise in rural areas.

## Initiatives to Improve Distribution

Over the past 30 years the province has used a number of strategies to attract physicians to smaller communities, particularly in the north. In fact, Ontario spends more than \$65 million a year to support nearly 30 incentive and education programs aimed at providing physician services to underserved regions (see Appendix 5). Many of these programs have proved to be effective; others are too recent to judge.

### Recruitment Incentives

The Underserved Area Program (UAP) provides a number of financial and other incentives to attract physicians to underserved areas. Physicians are given travel expenses to visit the communities, a bonus for coming to the community and assistance with relocation expenses. Through UAP, physicians who work in certain communities are exempt from the cap on annual OHIP billings. The UAP also provides funding for community development officers<sup>21</sup>, who have proven effective in working with Ontario communities to attract physicians.

The UAP's experience indicates that recruitment efforts are most successful when:

- the local community and local physicians are actively involved in the recruitment process
- the community provides a variety of physical supports, such as office space, as well as financial incentives
- the physician's spouse can find appropriate work or the community targets physician couples and is able to offer career opportunities for both partners.

Communities suggest that the UAP would be more effective if the process for becoming designated "underserved" were more efficient and streamlined. To be designated, communities must meet a number of criteria, including:

- accurate data on health professionals in place in the community now
- information on the population and physician-to-population ratio
- evidence of previous recruitment efforts
- a local demand for services
- the ability to provide additional, supportive health resources
- the support of local health care professionals
- the support of the district health council.

<sup>21</sup> This program began in 1995. The UAP now has three community development officers.

Communities report that it can take 12 months or longer to complete the designation process, depending on the size and complexity of the area. They are also concerned that the term "underserved" may have negative connotations and deter physicians from considering the career opportunities the communities offer.

One weakness of the current program is that it focuses almost exclusively on recruitment and offers little in the way of retention incentives.

For a sample retention program, see Appendix 5.

### **Other Financial Incentives**

Physicians who provide emergency department coverage (i.e., nights, weekends, holidays) in one of 78 eligible community hospitals in underserved areas receive \$70/hour emergency on-call sessional fee as recommended in the March 1995 Report of the Fact Finder on Small/Rural Hospital Emergency Department Physician Service (the Scott Report). A more generous hourly ER on-call fee was recently announced for some underserved hospitals in southern and northern Ontario.

New remuneration methods are also proving to be an effective way to improve physician distribution. In particular:

- community-sponsored contracts are now in place in 21 of the 26 northern communities in which they are available. These are communities that need 1 or 2 physicians. Doctors willing to work in these isolated and severely underserved communities are given guaranteed incomes, attractive benefits and clinic space. As of March 1999, 31 of the 40 contract positions had been filled.
- globally funded group practice contracts (or Northern Funded Group Practice) are available for 22 eligible communities that need 3 to 7 physicians. The program, which builds on the strengths of the community health centre (CHC) model, is designed to help communities recruit FPs/GPs. The contracts provide a certain amount of money to cover the full scope of primary care services in the community. (Ten communities, with a total of 42 physicians, have taken advantage of these contracts.)
- the Northwestern Ontario Neurosurgical Group Practice Agreement serves the districts of Kenora, Rainy River and Thunder Bay. The ministry provides global funding to cover the cost of all neurosurgical and related services, including education sessions for staff working in the communities.
- Primary Care Reform (PCR), which provides another alternative (to fee-for-service) funding model, is being pilot tested in seven Ontario communities. Co-sponsored by the Ministry of Health and Long-Term Care and the OMA, with funding from the federal government Health Transition Fund, PCR will involve as many as 200 family physicians and 450,000 rostered patients by the end of 1999. Physicians are paid either through a reformed fee-for-service system or through capitation funding.<sup>22</sup>

<sup>22</sup> For more information on the Primary Care Reform pilot project, see W. Graham, *The Ontario Medical Review*, October 1999.

Beginning in 1997, as part of the agreement with the OMA, the Ministry of Health and Long-Term Care began discounting fees for new physicians who chose to practise in



oversupplied areas. The program was partially effective, in the sense that between 1997 and 1999 just over 20% of new physicians located in oversupplied areas, compared with 40% in 1996. However, the physicians did not necessarily go to underserved areas, just to parts of the province that were not oversupplied. This initiative also seemed to put the responsibility for physician distribution solely — and unfairly — on the shoulders of newly trained physicians.

### **Information/Marketing Incentives**

The UAP funds an Internet-based Physician Job Registry, which is maintained by the Ontario Medical Association and designed to help match physicians with underserved communities.

Working closely with the communities, UAP also organizes an annual recruitment tour at the five health science centres in the province to ensure students are aware of the opportunities.

### **Other Supports**

Physicians in all size communities should be encouraged to work in real or virtual groups to provide [for] holidays, educational leave, sick time and maternity leaves and [provide] the community with self locums so that there is minimal interruption in the quality of care for the patients. My community of Sioux Lookout has been able to do this over the last 15 years [and] has shown an exemplary track record in recruitment and retention.

—Terry O'Driscoll, M.D, Chief of Staff, Sioux Lookout District Health Centre.

To support the physicians working in small and medium sized communities, UAP also:

- provides funding for nursing stations and medical clinics
- pays physicians to provide regularly scheduled primary care clinics and specialty outreach clinics in remote communities
- funds dental clinics in remote communities
- funds specialists for locum coverage to substitute for physicians who want to take holidays or attend courses, and also to address severe vacancy issues.

The OMA administered Continuing Medical Education (CME) program provides opportunities for rural physicians to take extra training by funding their registration, travel, accommodation and associated expenses.

### **The Impact of Training Location on Distribution**

It is important to note the close link between where physicians are brought up, where they study and where they practice.

- Medical students who are born or grow up in rural areas are more likely to practise in



rural areas. However, medical schools often find it difficult to attract enough applications from students in rural areas. This may be due to the expense of living far away from home. It may also be due to weaknesses in the education system in smaller centres that make it difficult for students to compete effectively with students from urban centres for the small number of available places. Tuition fees of \$10,000 to \$12,000 a year may also be a disincentive. However, a recently announced program to forgive tuition in exchange for return-of-service after graduation should help mitigate the high cost of medical education for students willing to practise in underserved areas.

- Physicians who receive their training in rural or remote areas or who specialize in rural medicine are more likely to decide to work in rural communities. Rural training programs help physicians develop the extra skills and competencies they need to practise rural medicine.

Training undergraduates in rural and remote areas is costly and the logistics are complex. However, each of Ontario's five medical schools now offers some training in rural medicine. For example: for the past three years, the Southwestern Ontario Rural Medicine Program (SWORM), led by Dr. J. Rourke, and the University of Western

Ontario have provided a program that gives all undergraduate students some exposure to rural medicine in each of their four years in medical school.

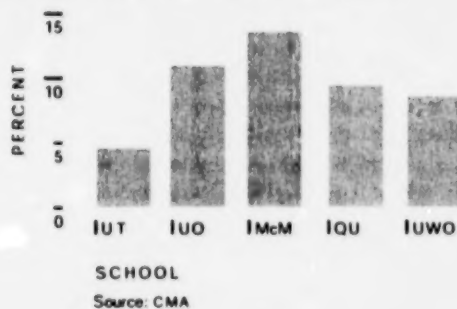
Postgraduate training in rural areas also has a significant positive impact. The family medicine program offered in Sudbury and Thunder Bay has been graduating approximately 24 family physicians a year since 1993, and approximately 60% of those graduates go on to work in rural or remote communities<sup>23</sup>. This compares very favourably with the 4 to 13% of graduates of the five Ontario medical schools over the last 10 years who have decided to practise in rural or remote areas.

The rural family medicine program in Sudbury and Thunder Bay operates to the same academic standards as the medical school-site family medicine programs at the five Ontario medical schools. Its graduates scored as well on their exit examinations (i.e., MCCQE2 and CFCEP certification) from 1993 to 1996 as the graduates from the five medical school-based programs.<sup>24</sup>

The recently announced Northern Academic Health Science Network (NAHSN)<sup>25</sup> will substantially increase the size and scope of the pan-northern medical training network. The new funding will provide the glue to integrate and strengthen nearly a dozen undergraduate, postgraduate and practising professional medical education programs in northern Ontario. NAHSN will help ensure effective collaboration among existing north-eastern and northwestern programs, and will almost certainly improve the future distribution of physicians to underserved areas.

FIGURE 15

#### % of Graduates of Ontario Medical Schools Practising in Rural Areas Since 1990



23 Pong R, Rowe B, Malloy J. Educating Physicians for Rural Practice in Ontario — Assessing Initial Outcomes. 1996 Abstr.

24 McKendry R. Unpublished Data

25 Approved in May 1999 with funding of \$8.8 million. \$4.95 million from the Ministry of Northern Development and Mines and \$3.7 in annual operating grants from the Ministry of Health.

## Does Ontario Need a Single Mission Medical School?

During the consultations, some people noted that Ontario's existing rural training initiatives do not go far enough. They suggested that a new medical school dedicated to rural medicine — an approach that has been used successfully in parts of the USA and in other countries — would be the best way for Ontario to recruit and train physicians to work in small, rural and remote communities.

Laurentian University (Sudbury) and Lakehead University (Thunder Bay) were suggested as sites for the school because they:

- already provide other health professional training programs
- share successful family medicine training programs
- recently received the Northern Academic Health Science North (NAHSN) funding
- serve the health care needs of about 500,000 people.

### Rationale

The rationale for establishing a single mission medical school is based on the following:

- There is a chronic and increasingly severe undersupply of physician services in rural/remote regions of Ontario, despite a variety of rural medicine initiatives provided by the existing medical schools
- Recruiting and training future physicians from/in underserved rural areas will significantly improve the physician supply in those areas
- This goal can be achieved most effectively by establishing a medical school with a singular mission to graduate physicians with the particular knowledge, skills and attitudes required for self sufficiency in rural practice.

In its recent paper, *Educating Physicians for Rural and Northern Communities*,<sup>26</sup> the Council of Ontario Faculties of Medicine lays out a series of education objectives. In a submission to the Fact Finding Commission, Dr. J. Rourke indicates how a new school in rural medicine would meet those objectives (see Appendix 6B).

For a more detailed description of the rationale for seriously considering a single mission school for rural medicine, see Appendix 6A.

### Secondary Benefits

Proponents of a rural medical school in the north argue that the benefits would extend far beyond better physician distribution. A school of rural medicine would:

- improve access to and the quality of health care services in the north
- encourage better working relationships among physicians, nurse practitioners and other professionals (who would all be trained together)
- reduce the costs associated with transporting patients (from rural centres to urban centres for care) as well as the costs of incentive programs for underserved areas

<sup>26</sup> Council of Ontario Faculties of Medicine (COFM) Task Force on Education of Physicians for Rural and Northern Communities, April 1999

- lead to an increase in research on rural health/medicine which would, in turn, lead to better quality care
  - stimulate economic development and associated services and industries.
- For a more detailed description of the secondary benefits, see Appendix 6C.

#### SUMMARY

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##### **Does Ontario have a physician distribution problem now?**

##### **Will Ontario have a physician distribution problem in the future?**

Ontario has many ministry-sponsored incentive programs designed to provide physician services to underserved regions. Some — particularly the financial and recruitment incentives developed by the UAP and the group practice models/alternative funding plans — are quite effective. Over the past few years, Ontario has also developed a variety of rural medicine initiatives through its existing medical schools. Some of these programs have not been in place long enough to assess their effectiveness.

Despite these incentives and training initiatives, Ontario continues to have an increasingly serious issue with physician distribution — one that is being exacerbated by tight physician supply. The problem is not only growing, it is becoming more pervasive. As recently as five or six years ago, underservicing was only an issue in rural and remote communities in the north. Now many small and medium sized communities in southern Ontario are also having significant problems finding enough physicians.

Why? In general, existing incentives and training programs do not effectively address some of the most important factors that lead physicians to voluntarily select and stay in rural practice:

- attitudes (rural practice is not valued or considered prestigious)
- education (the skills required for rural practice may not be emphasized in a standard medical education system designed to produce pluripotential graduates).

If the supply of physicians remains stable or continues to shrink, Ontario could face severe difficulties trying to ensure equitable distribution of physician services across the province in the future. Given the chronic nature of its physician distribution problems, Ontario may have to look beyond incentives that try to attract and adapt urban physicians to rural practice. Instead, it should focus where it is most likely to succeed: recruiting medical students from rural and underserved areas and educating them in rural and underserved areas.

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## The Mix of Physicians and Physician Services in Ontario

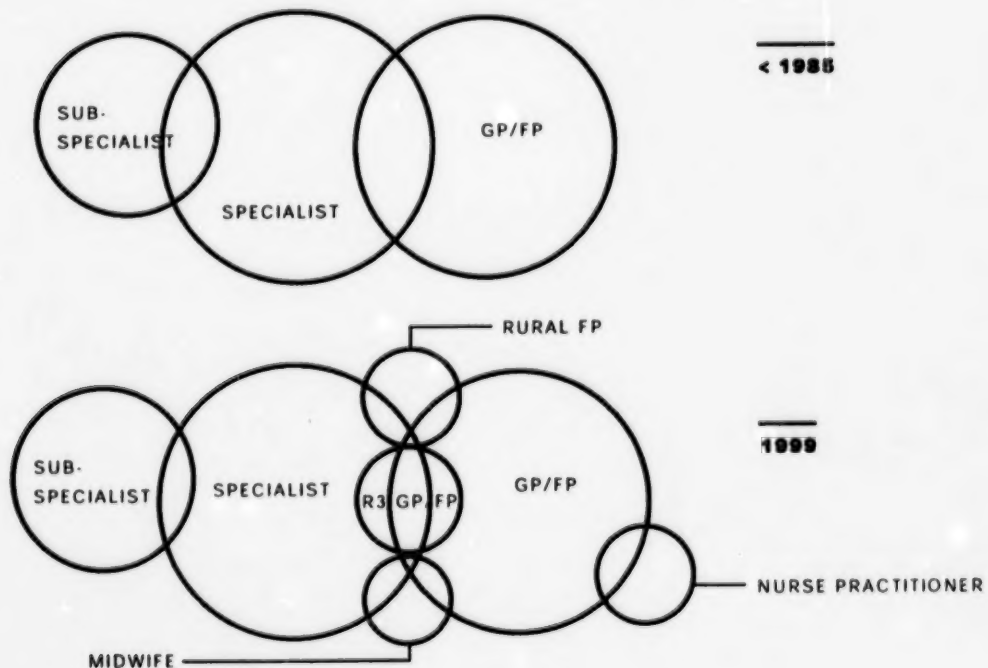
The mix of physicians is a function of the physicians' training, their skills and how they use those skills.

### Examining Ontario's Physician Mix

To meet Ontario's health care needs, the health care system must have an appropriate mix of different physician services: family physicians as well as a number of specialists and subspecialists who can provide a range of services.

FIGURE 16

#### The Changing Mix of Physician Services and Providers



Over the past 15 years, the variety of physicians and other health care providers with overlapping scopes of practice has increased. For example, family physicians may have a third year of specialty training, and midwives and nurse practitioners are now providing services previously offered only by physicians (see figure 16).

However, it is important to note that a physician's specialty designation is, at best, an approximation of the services that person provides. For example, an ophthalmologist in an urban area may confine his/her practice to laser refraction surgery. That means that he/she is not available to provide the full range of ophthalmology services. A rural FP/GP may also provide some obstetrical services and/or anesthesia. A medical internist may function as a subspecialist.

The data on physician numbers discussed earlier indicated a drop in the number of GP/FPs in Ontario and in the GP/FP to population ratio, but relatively little change in the ratio of specialists to population. But does that mean the province has an effective supply of specialist services? How appropriate is the supply among each of the subspecialties?

Some indicators that can be used to assess the adequacy of specialist services currently and in the future include timely access to care, the number of physicians in each specialty, the aging of the specialist group (because physicians are likely to retire after 35 years of practice), the proportion of women in the specialty (because women physicians tend to work fewer hours), workload indicators (discussed earlier), migration trends, the number of international medical graduates in the specialty (which can signify that there are not enough Canadian trained physicians available) and reports from the specialties themselves.

### Waiting Times for Specialist Services

Despite their limitations as a tool in assessing physician supply, waiting times may have some value as an indicator of problems with service mix.

TABLE 7

#### Waiting Times for Specialist Services

| SPECIALTY          | AVERAGE WAITING<br>TIME (IN WEEKS) | SPECIALTY          | AVERAGE WAITING<br>TIME (IN WEEKS) |
|--------------------|------------------------------------|--------------------|------------------------------------|
| 1997               |                                    | 1998               |                                    |
| PSYCHIATRY         | 9.8                                | OPHTHALMOLOGY      | 16.6                               |
| ORTHOPEDIC SURGERY | 9.3                                | ORTHOPEDIC SURGERY | 12.6                               |
| OPHTHALMOLOGY      | 9                                  | OTOLARYNGOLOGY     | 12                                 |
| ENDOCRINOLOGY      | 8.65                               | PSYCHIATRY         | 11.9                               |

In its 1998 midterm update, the OPHRDC reported results of its survey on waiting times for specialist services. Table 7 lists, for 1997 and 1998, the four specialties with the longest waiting times.

These findings are reinforced by the Fraser Institute, which routinely measures the weeks people wait from referral by a GP to get an appointment with a specialist, and from the first appointment with the specialist to receive treatment. In its most recent edition of *Waiting Your Turn: Hospital Waiting Lists in Canada*, the Institute provided the following data on waiting times in 1995, 1996 and 1997:

- waiting times in Canada (no breakdown is available for each province) were longest for the surgical subspecialties of ophthalmology, orthopedic surgery, elective cardiovascular surgery, neurosurgery and plastic surgery
- people in Ontario waited an average of 10 weeks from their GP referral to receive specialist treatment. However, on average, specialist referral waiting time in Ontario is shorter than in other provinces.

### **Feedback from the Specialties**

As part of the fact finding study, the Ontario Medical Association sections and the Royal College of Physicians and Surgeons of Canada (sub) specialty societies completed a questionnaire, giving their assessment of their supply situation now and in the future, ranking any needs they had as mild, moderate and severe.

The response rate was 64% for the OMA sections and 53% for RCPSC subspecialty societies. Of the 29 OMA sections that responded, 25 reported that their specialty was currently inadequately supplied and 10 considered the problem to be severe: anesthesiology, nephrology, nuclear medicine, obstetrics/gynecology, otolaryngology, ophthalmology, palliative care, psychiatry, public health and rural practice.

At the national level, out of 32 subspecialty societies that responded, 31 reported an inadequate supply in Canada and 7 considered the problem to be severe: anesthesiology, general surgery, geriatric medicine, hematology, neuropathology, radiation oncology and radiology.

For more detail on the survey results, see Appendices 7 and 8, and for a summary of the themes identified from the survey, see Appendix 9.

### **The Big Picture**

The following table lists the mix of specialties and the various "signs" that they might have a supply problem. The greater the number of factors present in each specialty (i.e., workload, waiting times, reported shortages), the more likely that the specialty has a

TABLE 8

**Indicators of Physician Workforce Adequacy in Ontario by Specialty**

| DISCIPLINES                 | Change <sup>1</sup> | Relative <sup>2</sup> | FFS# <sup>3</sup> | FTE/FFS <sup>4</sup> | Wait <sup>5</sup> | Women <sup>6</sup> | Age <sup>7</sup> | CanMD <sup>8</sup> | OMA sur <sup>9</sup> |
|-----------------------------|---------------------|-----------------------|-------------------|----------------------|-------------------|--------------------|------------------|--------------------|----------------------|
| <b>GP/FP</b>                | ■ ■                 | ■ ■                   |                   |                      |                   |                    |                  |                    | ■ ■                  |
| <b>Medical Specialists</b>  |                     |                       |                   |                      |                   |                    |                  |                    |                      |
| Internal Medicine           |                     |                       |                   | ■ ■                  |                   |                    |                  |                    | ■                    |
| Dermatology                 | ■                   |                       |                   |                      |                   |                    | ■ ■              |                    | ■ ■                  |
| Neurology                   |                     |                       |                   | ■ ■                  |                   | ■                  |                  |                    |                      |
| Pediatrics                  | ■                   |                       |                   |                      |                   |                    |                  | ■ ■                |                      |
| Physical Medicine           |                     |                       |                   |                      |                   |                    |                  |                    |                      |
| Psychiatry                  | ■                   |                       |                   | ■                    | ■ ■               |                    | ■                | ■                  | ■ ■ ■                |
| Public Health               |                     | ■                     |                   |                      |                   |                    |                  |                    | ■ ■ ■                |
| Emergency                   |                     |                       |                   |                      |                   | ■                  |                  |                    | ■ ■                  |
| Occupational Medicine       |                     |                       |                   |                      |                   |                    | ■                |                    |                      |
| Anaesthesia                 | ■ ■                 | ■                     |                   | ■                    |                   |                    |                  | ■                  | ■ ■ ■                |
| Nuclear Medicine            |                     |                       |                   | n/a                  |                   | ■                  | ■                |                    | ■ ■ ■                |
| Radiology – Diagnostic      | ■ ■                 |                       |                   | n/a                  |                   |                    | ■                |                    |                      |
| Radiology – Therapeutic     |                     |                       |                   | n/a                  |                   |                    |                  | ■ ■                |                      |
| <b>Laboratory Medicine</b>  | ■ ■                 | ■ ■                   |                   | n/a                  |                   |                    | ■                | ■ ■                | ■ ■                  |
| <b>Surgical Specialists</b> |                     |                       |                   |                      |                   |                    |                  |                    |                      |
| General Surgery             | ■ ■                 | ■ ■                   | ■ ■               |                      |                   | ■ ■                | ■ ■              |                    | ■ ■                  |
| CVT Surgery                 |                     |                       |                   | ■ ■                  |                   | ■ ■                |                  |                    |                      |
| Neurosurgery                |                     | ■ ■                   | ■ ■               |                      |                   | ■ ■                | ■                | ■                  | ■                    |
| Obstetrics & Gynecology     | ■ ■                 |                       |                   | ■                    |                   |                    | ■ ■              | ■                  | ■ ■ ■                |
| Ophthalmology               |                     |                       |                   | ■ ■                  | ■ ■               | ■                  | ■ ■              |                    | ■ ■ ■                |
| Otolaryngology              | ■ ■                 |                       |                   | ■ ■                  | ■ ■               | ■ ■                | ■ ■              |                    | ■ ■ ■                |
| Orthopedic Surgery          |                     |                       |                   |                      | ■ ■               | ■ ■                | ■                |                    | ■ ■                  |
| Plastic Surgery             |                     |                       |                   |                      |                   | ■ ■                |                  |                    |                      |
| Urology                     | ■ ■                 | ■                     |                   | ■ ■                  |                   | ■ ■                | ■ ■              |                    |                      |

■ &lt; ■ ■ &lt; ■ ■ ■

<sup>1</sup> Physician per population decreasing in Ontario from 1994 to 1998, SMDB<sup>2</sup> Physician to population ratio less relative to the rest of Canada<sup>3</sup> Actual number of FFS physicians (not per population) decreasing, NPDB<sup>4</sup> FTE/FFS or activity ratio greater than 1, 1995/96

NPDB: data not available for diagnostic specialties

<sup>5</sup> Waiting times longest, OPHRDC<sup>6</sup> Percent Women in practice low in 1998, SMDB<sup>7</sup> Percent of physicians over 60 high in 1998, SMDB<sup>8</sup> Percent graduates of Canadian medical schools low<sup>9</sup> Results of Survey of OMA Sections ■ ■ ■ ■ = severe shortage; ■ ■ = moderate shortage; ■ = mild shortage



supply problem now. However, it is important to note that no attempt was made to weight each sign as an indicator of undersupply, although it is likely that some are more important than others.

Based on Table 8, the specialties facing the greatest pressure seem to be otolaryngology, general surgery, ophthalmology, pathology/laboratory medicine, obstetrics/gynecology, psychiatry, neurosurgery, urology, anesthesiology, orthopedic surgery and family medicine. However, more analysis is required to fully understand all these factors and their impact on the different specialties.

It is important to emphasize that there is no completely objective method to select the "most" undersupplied specialty services. Based on the evidence reviewed and taking into account both actual supply and distribution, the Fact Finder concluded that the most serious, urgent shortages are in the following specialties (listed alphabetically):

- anesthesiology
- family medicine
- general surgery
- obstetrics/gynecology
- orthopedic surgeons
- pathology (laboratory medicine)
- psychiatry.

Several specialties that report only a mild or moderate supply problem in 1999 are predicting a more severe shortfall in five years' time, including endocrinology and metabolism, and radiation oncology. There will also be shortages in services for chronic pain and psychotherapy. At the national level, the following disciplines (listed alphabetically) also expect to have a severe supply problem within five years: allergy and clinical immunology, cardiovascular medicine, dermatology, medical biochemistry, nuclear medicine, otolaryngology, rheumatology and surgical oncology. In many cases, this is due to the aging of the current physician workforce. Some specialties (e.g., general

TABLE 9

### % of Physicians in Ontario over Age 60 and over Age 70 by Specialty

|                         | % OVER AGE 60 | % OVER AGE 70 |
|-------------------------|---------------|---------------|
| Internal Medicine       | 16.04         | 2.79          |
| Medical Genetics        | 0.00          | 0.00          |
| Dermatology             | 25.67         | 6.95          |
| Neurology               | 14.78         | 1.30          |
| Pediatrics              | 19.71         | 5.29          |
| Physical Medicine       | 14.18         | 4.48          |
| Psychiatry              | 20.48         | 3.47          |
| Public Health           | 3.81          | 0.95          |
| Emergency Medicine      | 0.00          | 0.00          |
| Occupational Medicine   | 21.74         | 4.35          |
| Anaesthesia             | 18.54         | 3.42          |
| Nuclear Medicine        | 20.90         | 2.99          |
| Radiology - Diagnostic  | 20.30         | 3.41          |
| Radiology - Therapeutic | 5.97          | 2.24          |
| Medical Biochemistry    | 31.82         | 0.00          |
| Medical Microbiology    | 11.11         | 2.22          |
| Pathology/Lab Medicine  | 20.77         | 2.66          |
| General Surgery         | 33.18         | 8.14          |
| CVT                     | 12.61         | 1.80          |
| Neurosurgery            | 24.39         | 4.88          |
| Obstetrics & Gynecology | 27.29         | 6.51          |
| Ophthalmology           | 27.27         | 7.86          |
| Otolaryngology          | 32.11         | 6.88          |
| Orthopedic Surgery      | 20.00         | 3.5           |
| Plastic Surgery         | 18.13         | 5.26          |
| Urology                 | 28.77         | 5.94          |
| Family Medicine         | 14.23         | 3.88          |
| All Physicians          | 17.49         | 4.02          |

Data from SMDB, CIHI



surgery, dermatology, obstetrics/gynecology, ophthalmology, otolaryngology and urology) have a disproportionate number of older practitioners (see Table 9).

It takes about four to eight years to train specialists (after medical school). If nothing is done to address problems of mix now, Ontario will likely face severe shortfalls in a number of specialties by the year 2005 and beyond.

### **The Impact of Interdependency**

Any effort to assess the supply of different specialties must take into account the interdependency of certain specialties, such as anesthesia, surgery or obstetrics and surgical pathology. A supply problem in one of these specialties will have an impact on the effective supply of the other services. Similar functional relationships exist between neurology and neurosurgery, rheumatology and orthopedic surgery, and primary care and some subspecialties. For example, the system needs an adequate supply of GP/FPs to provide timely, appropriate referrals to specialty services. In theory, a shortage of GP/FPs could reduce the effective supply of these other services. The most effective mix of physician services is one that allows for the best working relationship among interdependent disciplines. It can be particularly difficult to maintain these effective functional teams in rural or remote communities with a small number of physicians. Many specialties are also highly dependent on facilities and other health care providers, such as nurses. Shortage of nurses or operating rooms will have an impact on the effective supply of certain specialties, particularly surgical disciplines and anesthesiology. Changes in the health care system and initiatives such as hospital restructuring can have either a positive or negative effect on the mix of physician services.

## **Environmental Factors that Affect Physician Mix**

Two trends make it particularly difficult to predict future need for specialty services:

- rapid advances occurring in diagnostic and therapeutic technologies (e.g., medical genetics, sophisticated imaging, biologic therapies and transplantation) are changing some specialty practices
- changes in health care delivery that have other professionals moving into roles once reserved for physicians (e.g., PhDs in laboratory medicine, midwives in obstetrics, optometrists and opticians in eye care, nurse practitioners in primary care).

## **Factors that Affect Specialty Recruitment**

The mix of physician services is affected by the ability to recruit young physicians to various specialties. Many have noted the practice preferences of female physicians, but a specialty's ability to maintain an adequate number of practitioners also depends to a great extent on training opportunities, lifestyle and remuneration.

### **Exposure to the specialty in medical school**

Medical students must make decisions about their career path early in their training, and their educational experiences in the first three years of medical school have a steering effect on their choices and the subsequent mix of physicians. Most students are not exposed to certain specialties, such as anesthesiology, in the early training years and, therefore, they are less likely to consider them when making their career choices.

Based on the number of unfilled training positions after the first iteration of the CARMS match, it appears that Canadian students have less interest in some specialties that are consistently in short supply. After the first iteration of the 1999 CARMS match, only 10 Ontario PGY1 positions remained unfilled: five in family medicine, one in pathology, one in general surgery, one in obstetrics and two in psychiatry.

### **Distribution of postgraduate training positions**

The postgraduate training system provides a limited number of positions in each specialty each year. Once the allocated positions in a specialty are full, no other trainees can enter that program — even if there is a shortage or need for physicians with those skills.

The present distribution of these ministry-funded positions has more to do with historical allocations than society's need for particular family physician or specialist services (i.e., the right mix). It is difficult to move positions from one discipline to another. In the past few years, the postgraduate training system has been able to negotiate some small reallocations in training positions to try to augment specialties with severe shortfalls, but not enough to appropriately address the imbalance in the mix of disciplines.

### **Access to Re-entry Training**

The rigidity in the postgraduate training system is compounded by the relative lack of re-entry positions. The postgraduate training system currently provides enough places to accommodate the number of students graduating from the province's medical schools. The relatively small number of positions effectively limits career choices. It makes it very difficult for trainees to switch specialties during training and for practising physicians to re-enter the system to take specialty training.

This is particularly problematic for certain specialties, such as anesthesiology, radiology, lab medicine and community medicine, which usually draw up to 40% of their members from family physicians who have practised for a number of years and then decided to take specialty (re-entry) training.

### **Re-entry Opportunities**

Re-entry programs are designed to give practising GP/FPs new skills. A successful pilot re-entry program in 1995-96 was followed by a similar, larger re-entry program negotiated as part of the 1997 OMA agreement. In this program, practising GP/FPs in Ontario can

apply for 10 R3 family medicine positions (in emergency medicine, anesthesiology and care of the elderly) and 15 specialty positions (in general surgery, obstetrics/gynecology, internal medicine, psychiatry and anesthesia). Applicants are required to provide one year of service in an underserved area for each year of re-entry training.

Over the past three years, only 26 of the 45 specialty positions have been filled, and many physicians involved in the program have yet to finish their training or begin their return-of-service. Of the 25 who were accepted for the third year of family medicine, 8 are doing or have completed their return-of-service, while 17 are still in training. Although physicians in rural communities appreciate efforts to provide re-entry training, they complain about the rigidity of training/retraining programs. In many cases, they want only a few months of training (rather than an R3 year) to gain the skills they need to increase the effective supply of physician services in their community. But these shorter training opportunities are not available.

### **Funding Models**

It is reasonable to assume that medical career choices are affected to some degree by the ways specialties are funded and by the earning potential of each specialty. For example, a number of specialties that are consistently undersupplied, such as laboratory medicine and community medicine, are salaried positions and may not offer physicians the same earning opportunities as fee-for-service specialties.

In general, specialists earn significantly more than family physicians. However, some specialties are financially more rewarding than others. A Ministry of Health and Long-Term Care/Ontario Medical Association committee will soon be recommending ways to revise the schedule of benefits (using a resource based relative value scale) to assign fees more fairly for services within and between medical specialties. This change may help make certain undersupplied specialties more attractive.

Lack of funding or inappropriate funding mechanisms can also have an effect on the mix of physician services available in a community. For example, GP/FPs who have the appropriate training and skills, are expected to provide anesthetic, obstetrical and general surgical services in smaller communities. However, the amount they can earn for these services under the current fee-for-service system is not enough to compensate for the disruption to their regular office practice and their lifestyle, the training they need to stay current and the increased liability risks they assume.

There is some suggestion that alternative payment plans might help improve access to services. According to a recent study comparing waiting times to access specialists at Queen's University, waiting times increased from 40 days in 1992 under a fee-for-service funding model to 44 days in 1996 under an alternative payment plan. However, the report presents evidence that the increase in waiting times was not due to the payment method.<sup>27</sup>

27 Shaw RA, Jackson AC, Farguhar DRE. 1999. Waiting Times for First Appointments with Clinical Specialists at a Canadian Academic Health Sciences Centre Before and After Implementation of an Alternative Funding Plan. *Annals RCPSC*, Vol. 32, Number 6.

### **Demographics**

As noted earlier, the increase in women physicians will continue to have an impact on the mix of physician services. Women usually prefer careers in family medicine, pediatrics and medical specialties rather than general surgery or surgical subspecialties. In fact, with the exception of obstetrics/gynecology, only 15% of surgical specialists in Ontario are women. With the growing number of female medical trainees, positions in specialties that are undersupplied, but which do not generally appeal to women, may go unfilled.

### **Migration**

Canadian physicians — both family physicians and certain specialists — are in great demand internationally. In the recent past, the following specialties had the greatest out-migration (i.e., >3% of total Ontario supply per year between 1992 and 1996): cardiothoracic surgery, neurosurgery, orthopedic surgery, infectious diseases, hematology, oncology and thoracic surgery.

These losses may influence the number of certain specialists and the overall mix of physician services in the province.

### **SUMMARY**

#### **Does Ontario have the right mix of physician services now?**

#### **Will it have the right mix in the future?**

Based on workload, waiting times and reported shortages, Ontario is currently facing a significant shortage in certain specialties, including general surgery, obstetrics/gynecology, pathology (laboratory medicine), anesthesiology, orthopedics surgeons, psychiatry and family medicine.

In the near future, Ontario is also likely to experience significant shortages in several other surgical subspecialties, such as otolaryngology, ophthalmology, urology, neurosurgery and in radiology.

The reasons for the shortages vary, depending on the specialty. Factors that may have contributed include lack of exposure to certain specialties in undergraduate education, lack of opportunities for re-entry training, the rigidity of the postgraduate training system, the growing desire among physicians to work in more "sociable" hours and lack of remuneration for certain services.

Factors that affect the type and amount of services provided by the mix of physicians include practice patterns, remuneration, migration as well as the availability of interdependent services and facilities, such as nurses and operating rooms.

Efforts to adjust physician mix must target both the training system and funding mechanisms, and take into account the unique issues facing each undersupplied discipline.



## **Other Factors that Influence Physician Supply, Distribution and Mix**

Physician workforce planning cannot occur in isolation. Ontario's current and future need for physician services are influenced by many other factors including:

- role of other practitioners with overlapping scopes of practice
- models of practise used to deliver services
- new technologies.

### **Other Practitioners**

Among regulated health professions, a number have scopes of practice that overlap or complement physician services. With primary care reform and the restructuring of hospital services, the health system is working to develop a more strategic approach to providing care and encouraging providers with different skills to work together.

Physicians have long had an effective working relationship with nurses, and are accustomed to delegating certain tasks to them as a means of providing services efficiently. In many northern, remote communities, nurses are the main primary care provider, and they work with the support of physicians who visit the communities and provide phone consultations.

Over the last five years, the Ministry of Health and Long-Term Care has actively encouraged the development of nurse practitioners (NPs)<sup>28</sup>: nurses with an expanded scope of practice who can provide a wider range of primary care service. Nurse practitioners have the skills and training to work independently in collaboration with physicians. Effective use of their services may relieve some of the pressure on physician services and ensure that people in Ontario have more timely access to care.

Many physicians would welcome the opportunity to develop closer, more complementary practices with other health care providers. In the OMA section survey, 21 out of 29 sections that responded reported that, within the services they provide, there is a role for non-physician health care providers (see Appendix 7). A significant number of physicians would like to work with nurse practitioners but are deterred by issues of funding and working relationships (e.g., independent, complementary practitioner versus employer-employee relationship). Nurse practitioners included in the Fact Finder inter-

<sup>28</sup> Registered Nurses-Extended Class RN-E C

views were asked about their role in the health care system and in working with physicians. Among nurse practitioners themselves, there is a variety of opinions about the type of relationship they want with physicians. All wish to function as independent health professionals, and most would prefer salary to fee-for-service remuneration. Although most NPs are employed in community health clinics and remote nursing stations, some have worked with physicians in fee-for-service practice.

The health care system is still struggling to determine the most effective way to pay NPs, and to integrate them effectively into primary care. Currently, the Ministry of Health and Long-Term Care provides \$5 million annually for nurse practitioner positions in community health centres, nursing stations and Aboriginal Health Access Centres. In October 1999, the ministry announced a \$10 million request for proposals designed to encourage the use of NPs in underserved areas, in practices with physicians, in hospitals and in long-term care facilities.

Based on the province's limited experience to date, it appears to be easier to integrate NP and physician practice within a salaried or alternative funding plan than in the fee-for-service system. Within the current fee-for-service system, there is no mechanism for physicians to charge for the overhead costs associated with hiring a NP or for the time spent consulting with the NP. This is a significant barrier for fee-for-service physicians and, as the majority of physicians in Ontario are on the fee-for-service system, it is a barrier in integrating NPs into practice.

The new request for proposals is open to fee-for-service physicians. It does provide funding for overhead costs, but not for physician supervision. It will be instructive to follow this process and assess where and how NPs can be used most effectively. This evaluation should identify the factors that help build effective working relationships between physicians and NPs. The findings will likely have a significant impact on physician workforce planning.

## Models of Care

The health care system is beginning to look seriously at different models for delivering care, such as primary care reform, community health centres and shared care. In many of these, physician practice is changing. Physicians become responsible for the more complex cases that need their skill and expertise. More routine assessment and care is provided by other health practitioners, with the physician available for consultation and advice.



## Technological Advances

Advances in technology are also changing the way care is delivered. For example, Telehealth can help overcome some of the problems associated with delivering health care over large, sparsely populated areas, and improve the mix of services available to people in remote areas.

Telehealth uses a combination of information and communications technology to deliver information, advice, services and expertise. It can be used to:

- provide health care to remote and isolated communities that lack health care providers
- provide timely consultative advice and expertise between specialists and non-specialists separated by distance
- support the recruitment and retention of health care providers in rural and remote communities by improving their access to urban services and by providing ongoing learning opportunities
- permit timely sharing of resources such as electronic patient information and records, expediting care and reducing duplication
- support the delivery of services that are not currently available locally, such as ultrasound, radiology and mental health services
- support health care activities at home and in communities by monitoring vital signs and providing education for patients, professionals and voluntary caregivers
- providing dependable, timely, high quality interactive health information.

Ontario is now piloting three Telehealth networks which operate out of the Toronto Hospital for Sick Children, Sunnybrook Hospital (NORTH Network) and Ottawa Heart Institute respectively. These pilots have had a significant impact on the mix of services available in underserved areas.

In its physician workforce planning, Ontario cannot afford to ignore other technological advances in the practice of medicine. New clinical treatments and new technologies can have a significant impact on the services physicians provide and the skills required to provide those services.





## **Views of the Fact Finder:**

### **Lack of Physician Services in Ontario ... a 5% problem?**

Most of the 20,000 physicians in Ontario are providing services where and when they are needed. Indeed, it has been suggested that a few dozen physicians added in the north, and a few hundred in southern Ontario, could solve the supply, distribution and mix problems — if they were selected and deployed to meet specific regional needs. The number needed for the entire province is surely less than 1,000 physicians — about 5% more than we have now.

However, for each of the undersupplied communities, regions and specialties, lack of physician services is not a small problem. It is a serious situation. In fact, 5% too few physicians is a much bigger problem than 5% too many. Presently the uneven distribution of physicians and the lack of availability of some physician services is more problematic than an overall lack of physicians. However, the undersupply also aggravates the maldistribution of services. What was once a rural problem is also becoming an urban problem. Cities and towns such as Windsor, Kitchener-Waterloo and Niagara are having serious difficulties recruiting and retaining physicians.

With respect to supply, is the problem an undersupply of physicians or physician services or both? Probably both. The growth in Ontario's population over the past five years has not been matched by an increase in physicians. The impact of fewer physicians serving a larger population is compounded by a changing work ethic. Recent medical graduates are looking for a more "balanced" lifestyle. Many are adjusting their practice styles to be able to work in more sociable hours, and avoiding those parts of practice where stress and liability are high and the rewards low. This being the case, will we need more physicians in the future to deliver the same volume of services provided in the past? How do we maintain the effective supply of physician services? Can other providers help? Can technology help?

As outlined in this report, the demographics of consumers and providers point to an increasingly insufficient supply and inappropriate distribution and mix to meet societal health care needs in the next 5 to 10 years — if corrective actions are not taken immediately.

We recommend a societal needs-based approach to physician workforce planning, and an evidence-based approach to defining and evaluating the options for short and long-term solutions.

## Where will the solutions come from?

In my opinion, several of the recently implemented incentive programs and group practice arrangements — such as hourly fees for low volume emergency room coverage, community sponsored contracts, Northern Global Funded Practice and Primary Care Reform practice models — have already improved the supply and distribution of physician services, especially in the north.

These incentives and group practice programs could be applied more widely in the underserved areas of southern Ontario. Expanding existing education programs, such as re-entry training and the IMG Program, will also help to improve the mix, distribution and supply.

Current efforts to provide professional working environments that minimize the time and resources needed for office management will help to stem the tide of out-migration and redistribute Ontario physicians to locations where such "turn-key" facilities exist. Professional facilities that require minimal physician management and overhead costs will attract physicians to underserved areas. Using these facilities as training sites for future rural physicians exposes the next generation of physicians to the collaborative nature of group practice.

All of the hundreds of solicited and unsolicited submissions I received suggested solutions. These ideas were provided by concerned individuals — consumers, health planners, physicians and other professional organisations. Despite efforts to incorporate the best of these suggestions, the fact finding office still has a supply of solutions from the collective knowledge and wisdom of these front-line practitioners and health resource managers that should be explored in more depth. For example, each of the (sub) specialities in critical undersupply have their own workforce plans on a national, if not provincial basis. We need to support their efforts.

Many submissions included the following views:

- There are few quick fixes.
- For every solution there are often unintended, undesirable secondary effects.
- One solution will not fit all regions — be flexible, no cookie cutter answers.

Helping regions to develop their own local solutions within a provincial framework — already successful in many locations — provides ownership and encourages collaboration. Empowerment and motivation are achieved by providing local ownership of the solutions, in exchange for previous ownership of the problems.

## What are the appropriate roles for other health care providers?

Nurse practitioners (registered nurse-extended class) should work collaboratively with physicians. This principle is widely accepted by physicians — (21 of 29 OMA sections reported that they do see a role for non-physician health care providers, such as NPs). Why is this easier to say than do?

In my view the NP-physician relationship must be "value added" for each independent health professional. Except in a few APP models (e.g., Community Health Centres) this is not the case. The fee-for-service physician is not compensated for the time, responsibility and expertise involved in providing consultation service requested by the NP and in accepting transfer of care. The same impediment has limited effective working relationships between midwives and obstetricians.

Appropriate compensation could be provided on a "fee-for-function" basis (i.e., flat rate for functioning with a NP), or as fee-for-service (i.e., a fee for the type of each NP initiated service provided by the physician). Society should expect that adding NPs and other health professionals to the publicly funded health care system will cost more, just as fulfilling unmet health care needs and demands is likely to cost more, than we may save by using less costly practitioners to perform some physician services. Rigorous evaluation of health outcomes will be as important as cost effectiveness studies.

### How Do We Develop Rural Physicians?

In the longer term the distribution and the effective supply of physician services should be accomplished through education and role modelling, not through a continual reliance on financial incentives. It is time to make a commitment to providing rural medical education that will prepare a core of physicians who will have the training opportunities, attitudes and skills to practice in smaller communities and in rural and remote areas. In the words of Barer and Stoddart, "Something different and additional will have to be done in the future if rural/remote access is to be improved."

In my view that "something different and additional" should be a new medical school in Ontario with a singular mission to prepare physicians for the clinical competencies essential to becoming a fully functional rural physician. With a proposed class size of 50 to 55 (a number equal to 10% of the present Ontario first year positions) this is primarily a solution to the problem of physician maldistribution, not physician undersupply. Everything from the student selection criteria to the undergraduate curriculum, the rural clerkship training sites, and the rural sited post graduate training in northern and southern Ontario would be designed to prepare graduates for rural practice.

Although the proposed location for the school is in Sudbury and Thunder Bay, in association with existing training programs for Nurse Practitioners and other health professionals, I believe most of the students would come from southern Ontario and return to rural and underserved towns and cities in southern Ontario where the need is greatest.

Location of childhood upbringing and pre-university education is at least as powerful a predictor of practice location as the location of medical education. For that reason, the school would give preference to admitting students with a rural background. With this policy, the school would be expected to draw 80% of its students from the south, and 20% from the north — if one assumes the application pressure for medical school admission is proportional to the geographic distribution of the rural population in Ontario (i.e., 80% in the south).

To ensure that Ontario is able to achieve its goal of training enough physicians for rural practice, the existing medical schools should also have their enrolment increased by 10% and target those positions for students in their existing or proposed rural training streams.

Several medical schools in the United States, Scandinavia, Japan and Australia specialize in training physicians for rural practice. In sparsely populated Canada the 14 largest cities are home to 14 of our 16 medical schools. Is it any wonder that recruiting and retaining physicians for rural/remote areas is a chronic national, as well as provincial, problem?

Can the same result be achieved by expanding the current, or developing new, rural training programs in the existing schools? That option would be less expensive, but would it also be less effective?

To quote Barer and Stoddart, "...it seems clear that real progress will require real change." Ontario has tried for 30 years to address the problems of physician mix and distribution by adjusting the programs provided by urban medical schools. It has had some limited success, but never the impact that would be required to give people in all parts of the province similar access to timely, appropriate physician services. It may be time to consider "real change" as opposed to tinkering with the existing system.

There is no doubt that establishing a new medical school will involve capital expenses in the short term as well as ongoing operating expenses. However, the current way of dealing with the problem of physician supply and distribution is not without expense. The government now spends more than \$65 million per year on incentives and training programs as well as \$2.5 million transporting patients from northern to southern Ontario for (sub)specialty care. How much of this could be saved if physicians wanted to work in underserved areas and if there were greater self sufficiency in (sub)specialty care in the north?

A medical school for rural medicine located in the north offers more than some direct cost savings. It has the potential to improve both access to and quality of care in the north and to encourage research in rural health and attract research funding. It could also stimulate local and regional economic development, create high quality jobs, and attract other associated activities and industries.

## Recommendations

To develop, manage and maintain the physician workforce required to meet societal health care needs, the Ministry of Health and Long-Term Care, Ontario physicians, the medical schools and the other stakeholders should consider the following steps:

- 1 Measure and understand societal health care needs
- 2 Develop the capacity to plan for a health workforce to meet societal health care needs
- 3 Ensure an adequate supply of physician services to meet current and future health care needs
- 4 Encourage more effective distribution of physician services across the province
- 5 Ensure an appropriate mix of physician services available to meet current and future health care needs
- 6 Make effective use of other health care providers to meet societal health care needs within an affordable health care system
- 7 Make effective use of technology to meet societal health care needs within an affordable health care system.

### 1 Measure and Understand Societal Health Care Needs

To determine the optimal supply, mix and distribution of physician services, all those involved in physician workforce planning must understand society's health care needs. One practical and effective way to measure needs and identify barriers that keep people from receiving timely care is Access Modelling.

- 1.1.1** Ontario's health care system should develop Access Modelling pilots for core services in medical fields where consumers appear to have ongoing problems getting timely care. These disciplines include family medicine, anesthesiology, general surgery, obstetrics/gynecology, psychiatry and orthopedics.

The methodology should be similar to that used effectively in the province's Cardiac Care Network. The pilots should define a range of appropriate waiting times for access to core services and compare observed/actual time to access these services with that standard. If people are consistently waiting longer than the recommended standard, the pilot projects would then identify the problems/deficiencies that affect timely access (e.g., an inadequate supply/mix of professional skills and services, a lack of appropriate facilities, lack of appropriate technology or problems with administrative procedures or communication).

Once problems/deficiencies have been identified, each pilot project should:

- take immediate corrective action where feasible
- make recommendations to the Ministry of Health and Long-Term Care (until the Office of Health Workforce Policy and Planning discussed below is operational) when the solutions require more intensive resources.

Planning for the Access Modelling pilots should be completed within six months, and the pilots in place and initial results available within 18 months.

## 2 Develop the capacity to plan for and manage a health workforce to meet societal health care needs

Physicians are part of a larger group of health professionals who work together to deliver care. Given the complexity of managing a health workforce, Ontario should develop a consistent, continuous capacity to assess needs, develop health workforce plans and adjust those plans to reflect changes in needs, practices, technology and other factors.

### **Develop a Health Workforce Planning Structure**

- 2.1.1** The Ministry of Health and Long-Term Care should establish a permanent, independent Office of Health Workforce Policy and Planning to monitor and anticipate health care needs, and determine the most appropriate mix, supply and distribution of professional skills and services to meet those needs.

The Office of Health Workforce Policy and Planning would:

- refine the methods now used to define health care needs as well as projection models for physician supply and for the supply of non-physician care providers
- improve the data available to support health workforce planning



- produce an annual report to advise the Minister of Health on health workforce issues
- recommend how best to manage the health workforce
- work with the ministry and the health professions to implement the ministry's health workforce policies.

The Office would work with a long-term planning horizon of 15 to 20 years, with rolling planning cycles that would be reviewed every three years to allow planners to make necessary adjustments.

The Office of Health Workforce Policy and Planning should be at arms-length from government. Stakeholders would serve on working groups and subcommittees, and report to a small decision-making group of independent health workforce experts and human resource professionals (not more than 10 people).

The Office should present its first report to the Minister of Health in the year 2000, and that report should include a planning framework and research agenda to support evidence-based health workforce planning.

The work of the Office should be supported by research to answer specific questions about workforce requirements and to determine whether other changes in the health care system (e.g., facilities, equipment, technology) could help deliver care more efficiently. This research should be done by a virtual research network comprised of experts now working in existing health-related research groups, such as ICES, CHEPA, OPHRDC, CraNHR, Queen's University Health Policy Unit, and the AHSCs. The Office's work should also be supported by key staff in the Ministry of Health and Long-Term Care, professional associations and national organizations.

The Office should also ensure that provincial health workforce initiatives are flexible enough to recognize and respect regional variations.

### **Improve Data**

Ontario would benefit from having one, robust physician database, as well as an accurate way to determine and measure physician activity (i.e., a function-specific FTE).

- 2.2.1** The Ministry of Health and Long-Term Care should ask OPHRDC to develop, with input from ICES, the ministry and the OMA, a uniform physician database for the province.

The ideal Ontario physician database should be able to link to national databases, and be used for both tracking and real-time monitoring of physician activity in the province.

- 2.2.2** The Office of Health Workforce Planning and Policy should work with the Ministry of Health and Long-Term Care to develop a model for projecting and monitoring the effective supply of physician services in the province.

The physician activity measure should be able to capture the time physicians spend providing clinical care (direct and indirect) as well as the time they spend performing other recognized physician functions in education, research, administration, policy development and the private sector. The process used to collect and manage data for the functional activity measure must respect the province's privacy legislation.

### **3 Ensure an adequate supply of physician services to meet current and future health care needs**

Ontario must take steps now to address the current undersupply of physician services and to avoid a more serious undersupply in five to 10 years. Any efforts to increase supply must also address mix and distribution issues: Ontario needs a targeted supply of physicians who are willing and able to provide services in smaller cities and in rural or remote areas.

The following short-term strategies are designed to meet both immediate and longer term needs. A few are designed simply to achieve a more adequate physician supply. However, most are designed primarily to address distribution.

#### **Increase Supply**

To meet immediate needs, Ontario should target two groups of trained physicians — Canadians who did their postgraduate training outside Canada and IMGs — who would need relatively little extra training to move into practice. It should also take advantage of excess capacity in the Ontario IMG Program.

- 3.1.1** The Ministry of Health and Long-Term Care should recruit/repatriate Canadian medical school graduates who have taken their postgraduate training in the United States and fund up to two years of postgraduate training in Ontario to enable these physicians to become eligible for CFPC or RCPSC certification.

In most cases, these physicians will need only one or two years of postgraduate medical training in an Ontario medical school to be eligible for the CFPC or RCPSC certification examination, a prerequisite for licensure in Ontario. The only barrier is lack of access to funded postgraduate training positions. The first graduates of this program could be available as early as the year 2001.

- 3.1.2** The Ministry of Health and Long-Term Care should provide the necessary resources to allow the University of Toronto to increase the existing Ontario IMG program from 24 to 36 positions, beginning in the year 2000.

The Ontario IMG Program at the University of Toronto has the teachers and sufficiently qualified applicants to provide another 12 positions a year. To maintain quality of care, the Toronto Faculty of Medicine should continue to refine this merit-based evaluation/postgraduate program and ensure that its graduates are capable of successfully completing the same training requirements and the same exit certification examinations as any other Ontario or Canadian graduates and, therefore, have the same access to unrestricted registration in Ontario.

### **Targeted Supply**

Most of Ontario's efforts to manage the physician workforce should be targeted to identifying and educating physicians who are willing to provide services where they are most needed. In particular, the province should target:

- new graduates
- expatriate Canadian physicians
- IMGs who could be recruited by underserved communities but who do not have the necessary certification or other qualifications needed for registration for licensure in Ontario.

**3.2.1** The Ministry of Health and Long-Term Care should work closely with the medical schools and the Professional Association of Internes and Residents (PAIRO) to reduce the number of recently certified physicians who pursue their careers outside Ontario.

The action plan should ensure that new graduates are fully informed about the practice opportunities and incentives in Ontario, particularly those in communities with an undersupply of physician services. This program should be in place by the year 2000.

**3.2.2** The Ministry of Health and Long-Term Care should develop a pilot recruiting campaign that targets expatriate Canadian trained physicians now practising in the USA or other countries.

The goal is to repatriate about 20 of the more than 800 physicians who have left Ontario over the past five years: 10 GP/FPs and 10 specialists. The campaign should offer suitable incentives in return for two years return-of-service in communities that have an undersupply of physician services. The incentives could include any or all of the following:

- relocation expenses
- clinic facilities
- support staff
- other incentives offered to physicians from within Ontario and Canada who relocate to areas in Ontario designated as underserved.

The program should be in place by the year 2000. If it achieves its goal, it could be repeated in subsequent years and target a larger number of physicians. To ensure that the incentives offered to expatriate physicians do not alienate those already working in the underserved communities, the physicians in those communities should be actively involved in the recruitment process.

- 3.2.3** Underserved communities who are able to recruit IMGs should be aware and take advantage of the practice eligible route to certification offered by CFPC<sup>29</sup> and the Alternative Assessment and Evaluation program being pilot tested by the Royal College of Physicians and Surgeons of Canada (RCPSC)<sup>30</sup>.

Communities who need to recruit anesthetists, obstetricians or psychiatrists who meet the eligibility criteria could benefit from the RCPSC pilot program leading to eligibility for the Specialist Evaluating Examination. Depending on the need for/success of this program, the RCPSC should consider expanding it. The RCPSC should also explore other methods to assess IMG eligibility to sit certification exams.

- 3.2.4** The College of Physicians and Surgeons of Ontario (CPSO) should consider providing time-limited special licenses for IMGs sponsored by underserved communities who are currently practising elsewhere in Canada and who are pursuing the CFPC practice eligible route to certification.

IMG candidates must meet all of the other CFPC eligibility criteria for IMGs practising in Canada who wish to pursue the practice eligible route to the CFPC certification exam, as certification is a prerequisite to obtaining registration for unrestricted licensure in Ontario.

- 3.2.5** The Ministry of Health and Long-Term Care should fund a limited number of postgraduate training positions for community-sponsored IMGs who do not qualify for the practice eligible route to licensure.

To qualify for these postgraduate training positions, applicants must have successfully completed the MCCQE1 and have other qualifications acceptable to COFM and the directors of the postgraduate training programs. In exchange for the required postgraduate training, the community-sponsored IMGs should be obligated to provide a year-for-year return-of-service in the sponsoring underserved community.

<sup>29</sup> Available only to IMGs in active practice in Canada.

<sup>30</sup> Available only to IMGs recruited from outside Canada or the USA.

## **4 Encourage more effective distribution of physician services across the province**

### **Make a Commitment to Rural Medical Education**

Recognizing that the most critical need for physician services is in underserved areas, Ontario should focus on developing physicians with the skills and interest in working in small and medium sized communities, and in rural and remote areas. Given that most doctors' choice of practice depends on their undergraduate learning experience, rural medical education must begin in medical school.

Ontario should continue to explore effective ways to expand rural and northern physician education and training, ranging from expanding current successful initiatives, such as SWORM, NASHN and ROMP to developing rural streams at existing medical schools to establishing a new medical school dedicated to rural medicine — or a combination of these options.

- 4.1.1** Ontario should increase undergraduate enrolment in the province's existing medical schools by approximately 10% (55 students) beginning in the year 2000 and allocate these positions to those schools that give priority to training rural physicians.

The new positions should be allocated among at least two medical schools, based on their ability to provide an effective, high quality rural training experience at both the undergraduate and postgraduate level, and their demonstrated ability to produce graduates who go on to practice in rural areas. The Ministry of Health and Long-Term Care and the Ministry of Training, Colleges and Universities should work with the Council of Ontario Faculties of Medicine to identify the most appropriate locations for the positions.

- 4.1.2** Ontario should consider the advisability of creating a new medical school in rural medicine with a specific mission to attract students who are interested in working in the province's small, rural and remote communities.

A new school could build on the base of nurse practitioner and other health professional education programs already in place at Laurentian and Lakehead Universities in Sudbury and Thunder Bay. Its goals would be to teach students the skills and competencies, and give them the practical experience they will need to practice in smaller communities and in rural settings. The suggested class size for the four-year program is approximately 55 students, with 25 to 30 students at each site.

In an ideal world, the new rural medical school would provide all four years of the students' undergraduate training. However, given the training resources already in place and the cost associated with establishing a new medical school, it may be more cost-effective for the new medical school to provide the final two years of training (clerkship) and to "purchase" the students' first two years of undergraduate training (pre-clerkship) from existing schools.

- 4.1.3** The Ministry of Health and Long-Term Care, in collaboration with other stakeholders, should assess the potential benefits of a new school for rural medicine compared to other rural medical training options and prepare a report on or before July 2000.

The assessment and report should include:

- the feasibility of establishing a new school for rural medicine, and/or expanding current or developing new programs in (an) existing medical school(s)
- the business case and business model, including an analysis of the potential impact the different options on:
  - health (e.g., access to health care, quality of health care services, distribution of physician services, integration of physicians and other health care providers)
  - costs/savings (e.g., the cost of the programs vs cost savings in patient transportation and physician incentive programs)
  - economic development (e.g., the potential to create jobs, act as an economic stimulus and attract other associated industries)
  - research (e.g., the potential to create the critical mass of expertise to conduct research in rural health and to attract research funding)
  - Canadian physician resources (e.g., the potential to serve a national role, and to provide training in rural medicine for trainees from other provinces and from the federal government's Aboriginal health initiatives and attract funding from outside the province)
- structural and functional models
- implementation strategies and timelines.

#### **Make Effective Use of Recruitment/Retention Incentives**

It will take five to eight years for Ontario to begin producing a corps of rural physicians. In the meantime, the province should continue to make effective use of incentives, based on existing successful programs, to distribute physician services more equitably and create sustainable group practices.

To date, most of Ontario's efforts to attract physicians to underserved areas have focused on recruitment. Based on the theory that it will be more cost effective and provide greater continuity of care to keep physicians, Ontario should make a concerted effort to retain the physicians who are attracted to small, rural and remote communities.

- 4.2.1** The Ministry of Health and Long-Term Care should make greater use of group practice recruitment incentives that have proven effective in the north (e.g., community

sponsored contracts) and offer similar programs (with suitable modifications) in communities in the south.

**4.2.2** The Ministry of Health and Long-Term Care should work with local communities and physicians to develop a comprehensive retention program, that would include the following features:

- financial incentives for at least six years
- long service leave
- paid maternity leave
- information technology grants.

When developing its retention incentives, the Ministry of Health and Long-Term Care should also explore the benefits of providing financial incentives in the form of a pension plan or trust.

For examples and options on possible retention incentives, see Appendix 5.

### **Strengthen the Underserviced Area Program**

The government's Underserviced Area Program has been effective and, with some minor adjustments, should continue to play a key role in ensuring more equitable access to physician services.

**4.3.1** The Ministry of Health and Long-Term Care should make the following changes to the Underserviced Area Program (UAP) to increase its effectiveness:

- rename the UAP the Appropriate Physician Services Supply Program (APSSP)
- keep the current definition used to determine "underserviced" communities, but simplify and streamline the application and evaluation process, and reduce the time required
- hire three additional Community Development Officers.

**4.3.2** The APSSP should ensure that the physicians already practising in underserviced communities are actively involved in all efforts to recruit and retain new physicians, including initiatives designed to repatriate Ontario physicians (see recommendation #3.2.2).

**4.3.3** The APSSP should provide realistic recruitment incentives that achieve the objectives.

Currently, the program provides a \$40,000 recruitment incentive for physicians in the north, spread over four years. The incentive would be more effective, for example, if it were given over a shorter time frame, such as \$20,000 on arrival and \$20,000 at the end of the first year. Similar incentives could be offered to attract physicians to underserviced communities in the south. However, the total incentive offered should be less (e.g., \$25,000) to reflect the differential in lifestyle and amenities that tend to favour southern communities.



- 4.3.4** The APSSP should work with Group 1 and Group 2 communities (as defined by the 1993 OMA/Government agreement) to ensure they provide community clinic facilities suitable for group practice either by fee-for-service physicians or physicians on alternative funding plans.

While the local municipality, hospital and physicians should be responsible for the major portion of the capital and operating costs for these facilities, the ministry should contribute a share of these costs. In return, the physicians who use the facility must agree to provide full on-call services, including hospital in-patient care.

## **5 Adjust the mix of physician services available to meet current and future health care needs**

Ontario's current situation with mix of physician services is a function of inflexibility in the postgraduate training system and lack of rewards/support for physicians to provide certain specialist services in urban as well as rural and remote communities.

### **Develop More Opportunities Within the Postgraduate Training System**

With appropriate additional training, many GP/FPs working in small, rural or remote communities could develop the skills required to provide in-hospital services. However, training programs must be targeted to their needs.

- 5.1.1** To provide more flexibility in the length and type of training available to physicians already working in rural and remote areas, the Ontario Medical Association and the Ministry of Health and Long-Term Care should work with the province's academic health science centres to develop a competitive, short-term CME Skills Acquisition Program.

Such a program might support up to 20 practising physicians each year who need one to six months of "re-entry" training to enable them to provide hospital-based services such as obstetrics/gynecology, anesthesiology and emergency medicine as well as other needed services.

Successful applicants would receive an income similar to a PGY5 resident and reasonable monthly/living and relocation support and locum coverage of their practice. To qualify for the program, applicants must include a detailed description of their proposed skills training, how/where they will use their new skills and a letter from the local hospital confirming the need for these skills and services and endorsing the applicant. To select the best qualified applicants, the OMA and the MOH-LTC could use an adjudication process similar to the one now used for the re-entry/return-of-service program in Ontario. The program should begin in the year 2000.

- 5.1.2** To improve the physician mix over the longer term, and increase the number of family physicians with the skills to work in rural, remote areas, the Ministry of Health and Long-Term Care should provide the resources required to:
- increase the number of entry level residency positions in family medicine in Sudbury and Thunder Bay by 25% (6 positions) from 24 to 30
  - increase the number of family medicine PGY3 positions in obstetrics, emergency medicine, anesthesiology, care of the elderly and psychiatry in Sudbury and Thunder Bay from 4 to 10.

This modest increase in PGY1, PGY2 and PGY3 positions in Sudbury and Thunder Bay is limited by the availability of high quality training and supervision, not by lack of applicants or societal health care needs. For these successful rural programs to continue, practising physicians/teachers must be more adequately compensated for their teaching time.

- 5.1.3** To develop a corps of physicians with the skills to provide some specialty services in rural/remote areas, the Ministry of Health and Long-Term Care should expand the current re-entry training/return-of-service program from 25 to 40 positions.

The total number of positions would be allocated as follows:

- 15 GP/FP R3 positions in anesthesia, emergency medicine, care of the elderly, obstetrics/gynecology and psychiatry
- 25 RCPSC positions in undersupplied specialties such as anesthesia, laboratory medicine (including pathology), radiology, general surgery, obstetrics/gynecology, internal medicine and psychiatry.

The expansion should begin in July 2000.

- 5.1.4** The Ministry of Health and Long-Term Care and the OMA should revise the existing re-entry training/return-of-service program to reduce barriers and attract more applicants.

For example, the program could:

- continue to require one year return-of-service from physicians who take a GP/FP R3 year
- require six months return-of-service for each year physicians spend in RCPSC specialty training (with a minimum return-of-service of one year)
- open the program to specialists practising in Ontario who want to change their specialty
- expand the areas for return-of-service to all underserved regions
- continue to give preference to family physicians practising in Ontario, but open the program to practising GP/FPs from across Canada, as long as they meet Ontario's registration requirements

- remain a joint MOH/OMA initiative
- invite COFM to become actively involved in selecting candidates and facilitating the required training
- carefully monitor the program's evaluation results, and continue to modify the program to ensure it achieves its goals.

**5.1.5** The Office of Health Workforce Policy and Planning should monitor the mix of specialty physician services in Ontario to determine the right number and mix of postgraduate positions to meet provincial health care needs.

The number and mix of training positions must reflect the population's future health care needs. The Office of Health Workforce Policy and Planning, with appropriate input from stakeholders, should identify the type and number of positions. COFM would then be responsible for allocating those positions among the province's medical schools.

#### **Providing Appropriate Incentives**

Ontario should develop a range of incentives that will encourage physicians to provide those services that are in short supply.

**5.2.1** In the immediate short-term, the Ministry of Health and Long-Term Care should provide incentives that will increase the effective supply of emergency services, anesthesia, obstetrics, surgery and in-patient care in small, rural and remote communities.

For example, the ministry should consider providing to each hospital:

- a fixed amount (the same for each hospital, regardless of the number of physician providers) that would be shared among the physicians for providing a defined level of anesthesia, obstetrics and general surgery on-call and services
- a similar increase in the hospital operating budget to cover the non-physician costs of providing these services.

The ministry might also consider adjusting any cap on earnings for GP/FPs and specialists who provide hospital-based medical services.

**5.2.2** The Ministry of Health and Long-Term Care, the Ontario Hospital Association and the Ontario Medical Association should develop a task force to review and refine the proposal<sup>31</sup> from the Ontario Society of Rural Physicians (October 1999) for an affordable, fair incentive plan for physician services in rural and remote communities.

The proposal focuses on effective ways to retain physician services on Ontario's rural hospitals, and identifies the most urgent issues. It also provides a scaled definition of "rurality" and suggests two possible funding models: alternative funding plans or

<sup>31</sup> For a copy of the report, see the Society's web site: [www.ca/librarydocs/ONprogram.html](http://www.ca/librarydocs/ONprogram.html)

blended funding. The proposal's recommendations are detailed enough to allow planners to estimate overall costs.

### **Develop Discipline-specific Strategies**

The disciplines with more acute problems need a "fast track" process to implement the best short-term solutions. Each discipline is different and the reasons for the shortfalls vary. Each will likely require some discipline-specific strategies.

- 5.3.1** The Ministry of Health and Long-Term Care should review the existing discipline-specific workforce reports for those disciplines with the most acute shortages (e.g., anesthesiology, family medicine, general surgery, laboratory medicine/pathology, obstetrics/gynecology, orthopedic surgery and psychiatry) to identify/implement the recommendations most likely to improve the mix of physician services.

## **6 Make effective use of other health care professionals to meet societal health care needs**

Ontario should make every effort to make more extensive use of all health professionals, particularly nurse practitioners, to relieve some of the pressure on physician services and to provide timely access to health care. In the process, it must address some of the barriers that have prevented nurse practitioners from being integrated into primary care practices.

### **Integrating Nurse Practitioners**

- 6.1.1** Ontario should continue to explore effective ways to use nurse practitioners who have the training and scope of practice to work collaboratively with physicians and provide team care.

For example, in its recent request for proposals to make more effective and extensive use of NPs, the Ministry of Health and Long-Term Care should ensure that the successful proposals:

- represent a full range of primary care settings, including fee-for-service physician practices
- explore the feasibility of placing NPs to work with physicians in long-term care facilities and emergency departments.

In addition, the funded proposals should include an evaluation component that will help identify the barriers to making more effective use of NP services and ways to overcome

them. The evaluation should also identify the settings/funding systems where NPs are used most effectively, and where they can relieve some of the pressure on physician services.

- 6.1.2** To encourage more effective working relationships among physicians and nurse practitioners, the Ministry of Health and Long-Term Care and the Ontario Medical Association should determine the most effective way to compensate physicians in a team care model (e.g., fee-for-service, blended payments, alternative payment plans).

In developing compensation models, the ministry should take into account the overhead costs and consultation time required from physicians who collaborate with NPs, as these seem to be barriers to effective use of NPs now.

## **7 Make effective use of technology to meet societal health care needs**

Used appropriately, technology has the potential to make scarce physician services more available and to help ensure people make effective use of Ontario's health care resources.

### **Expand Telemedicine**

- 7.1.1** Ontario should continue to invest in infrastructure to support telemedicine applications which involve the use of co-ordinated electronic communications networks to transmit information and data and to provide appropriate clinical services.

The telemedicine network could be used to share information for diagnosis, consultation, treatment, education and training.

- 7.1.2** To support the provision of telemedicine services, the Ministry of Health and Long-Term Care should consider a number of options for appropriately compensating physicians for services delivered, including working with the OMA to amend the current fee schedule.

### **Extend Tele-triage Services**

- 7.2.1** The Ministry of Health and Long-Term Care should consider extending tele-triage services to southern Ontario.

A service similar to that being piloted in the north should be offered in the south.

- 7.2.2** Tele-triage services should be evaluated for their impact on access to care and on utilization of health services.

Ontario's tele-triage evaluation should include follow-up calls to everyone who contacts the service to assess the impact that the tele-triage system had on the person's health and use of the health care system.

## CONCLUSION

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Some recommendations in this report may be acted upon immediately. Some will require negotiation with the stakeholders involved. Others may need more analysis, and the Ministry of Health and Long-Term Care may choose to refer some to the Expert Panel for more study.

It is important to note that determining how many physicians the province should have is not simply a case of looking at numbers or projecting needs. It is a case of balancing society's need for physician services with its need for other public services and resources. One of the key principles of physician workforce planning, discussed at the beginning of this report, is that a sustainable supply of physician services should exist within an affordable health care system.

Ultimately, the citizens of Ontario must decide the level of physician services they need now or in the future. As individuals and as a society, we must understand and accept that the best affordable care is not necessarily the same as the best care at any cost.

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# APPENDIX 1

## Review of Background Literature on Physician Workforce Planning

### National

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## APPENDIX 2

# Ontario Physician Fact Finder Review: General and Regional Consultations

|   |   |
|---|---|
| Adams, Dr. J.                               | Glengarry Memorial Hospital, Alexandria                       |
| Arditti, Mr. Ed                             | VP, Legal Practice Management, Windsor                        |
| Atleck, Dr. Andrew                          | Family Practitioner, Thunder Bay                              |
| Augustine, Dr. John<br>(Retired)            | Royal College of Physicians & Surgeons of Canada              |
| Barnes, Ms. Marsha                          | Ministry of Health and Long-Term Care                         |
| Beaulieu, Dr. Roland                        | Director, Glengarry Community Health Centre                   |
| Beresford LLB, Mr. Harvey                   | Legal Counsel   |
| Bonn, Dr. John                              | Registrar, College of Physicians and<br>Surgeons of Ontario   |
| Boyle, Dr. David                            | Chief of Medical Staff, HRSRH                                 |
| Briggs, Dr. Peter                           | General Practitioner, Sterling-Rowden                         |
| Brown, Dr. John                             | PCCCAR Sub-Committee Chair                                    |
| Brunet, Dr. Claire                          | Centre de Santé Communautaire                                 |
| Busing, Dr. Nick                            | Chair, Family Medicine, Ottawa; Chair, PGM-COFM               |
| Bythenay, Mr. Keith                         | Executive Director, Longlac CHC                               |
| Candeloro, Mr. John                         | Administrator, Douglas Memorial Hospital,<br>Niagara District |
| Carter, Mr. John                            | Pres. & CEO, Greater Niagara General Hospital                 |
| Cashin, Mr. David                           | District Health Council Consumer Representative               |
| Choiniere, Ms. Jacqueline                   | Director, Policy, Practice & Research, RAO                    |
| Chalmers, Mr. Frank                         | Exec. Director, Essex, Kent & Lambton DHC                     |
| Chan, Dr. Ben                               | Institute for Clinical and Evaluative Studies                 |
| Chant, Dr. William                          | Ontario Hospital Association                                  |
| Cohen, Dr. May                              | Prof. Emeritus, Dept. of Family Med., McMaster Univ.          |
| Council of Ontario<br>Faculties of Medicine | All members   |
| Cox, Dr. Michael D.                         | Medical Director, St. Joseph's Villa                          |
| Coyte, Dr. Peter                            | Health Economist, University of Toronto                       |
| Craig, Mr. Douglas                          | Chair, Sudbury Health and Social Services Committee           |

|                          |  |
|--------------------------|--|
| Dauphinee, Dr. Dale      | Director, Medical Council of Canada                                  |
| Davis, Mr. Jeff          | Administrator, Port Arthur Clinic                                    |
| Dawes, Dr. Ray           | General Practitioner, Barry's Bay                                    |
| De, Dr. Nibhas           | Pediatrician, Thunder Bay & OMA Board Member                         |
| Denton, Dr. Frank        | Dept. of Economics, McMaster University                              |
| Denton, Dr. Richard      | FP, Mayor of Kirkland Lake   |
| Derry, Dr. Cliff         | GP, Madoc  |
| Devlin, Dr. Reuben       | CEO, Humber River Regional Hospital                                  |
| Evans, Dr. John          | Chair, PCCCAR  |
| Ferguson, Ms. Ginette    | Nurse Practitioner,<br>Centre du Santé Communautaire de l'Estrie     |
| Fitzpatrick, Mr. Paul    | Director, Economic Development for Cornwall                          |
| Fitzpatrick, Ms. Susan   | Provider Services Branch,<br>Ministry of Health and Long-Term Care   |
| Fooks, Dr. Cathy         | College of Physicians and Surgeons of Ontario                        |
| Frendo, Dr. Marion       | C/Staff, Niagara-on-the-Lake General Hospital                        |
| Gelinas, Dr. France      | Directeur General,<br>Centre de Santé Communautaire de Sudbury       |
| Gerace, Dr. Rocco        | College of Physicians and Surgeons of Ontario                        |
| Gilbert, Mr. Frank       | President, Lakehead University                                       |
| Goldsmith, Ms. Linda     | Nurse Practitioner, Windsor  |
| Goodhand, Ms. Jeanne     | E.D., Gateway Community Health Center                                |
| Goodwin, Ms. Sharon      | Nurse Practitioner Association of Ontario                            |
| Graham, Dr. Wendy        | Chair, Primary Care Reform   |
| Gregg, Mr. Brian         | Chief Administrative Officer, County of Essex                        |
| Grinspun, Ms. Doris      | Executive Director, RNAO   |
| Gutkin, Dr. Cal          | CEO, College of Family Physicians of Canada                          |
| Hawkins, Dr. David       | CEO, APMC  |
| Hindmarsh, Dr. J. Thomas | Laboratory Medicine, University of Ottawa                            |
| Hynes, Dr. Adrien        | Psychiatrist, Lakehead Psychiatric Hospital                          |
| Jemmet, Ms. Mary         | Nurse Practitioner, Sudbury  |
| Jacks, Mr. Jim           | Reg. & Claims Branch,<br>Ministry of Health & Long-Term Care         |
| Johnson, Ms. Bonnie      | Nurse Practitioner, Pembroke   |
| Johnston, Ms. Cynthia    | Sr. Planner, Acute & Primary Care, Southeastern DHC                  |
| Johnston, Ms. Miriam     | Aboriginal Health Consultant,<br>Ministry of Health & Long-Term Care |

|                              |   |
|------------------------------|---|
| Kaigas, Dr. Tiina            | College of Physicians and Surgeons of Ontario                                     |
| Kasperski, Dr. Jan           | Ontario College of Family Medicine  |
| Kealy, Dr. Ciaran L.         | Canadian Association of General Surgeons  |
| Kennedy, Dr. Stewart         | Family Practitioner, Thunder Bay  |
| Keystone, Dr. Jay            | IMG Program Co-ordinator  |
| Khulman, Dr. Peter           | General Practitioner & Obstetrician, Windsor                                      |
| King, Mr. John               | ADM Health Services,<br>Ministry of Health & Long-Term Care                       |
| Koenig, Ms. Joanne           | Community Development Officer   |
| Kokocinski, Ms. Laura        | Executive Director, Thunder Bay District CCAC                                     |
| Kraemer, James               | Administrator, Health Sciences North, Lakehead Univ.                              |
| Lacourciere, Ms. Joanne      | Health Sciences North, Lakehead University  |
| Loechel, Ms. Helga           | Health Services Planning Manager,<br>Ministry of Health and Long-Term Care        |
| Leatt PhD, Ms. Peggy         | Health Services Restructuring Commission  |
| Lindberg, Ms. Mary Catherine | ADM, Ministry of Health and Long-Term Care  |
| MacDonald, Ms. Miriam        | Northern Academic Health Science Network  |
| MacGuire, Dr. Shawn          | Chief, General Practice   |
| MacLeod, Mr. Ian             | Chair, Windsor Recruitment Committee  |
| MacMillan, Ms. Kathleen      | Nursing Consultant  |
| Mahood, Ms. Eileen           | Director, North. Hlth. Planning & Prog.,<br>Ministry of Health and Long-Term Care |
| Manson, Ms. Joanne           | Senior Health Planner, Niagara DHC  |
| Martel, Mr. John             | DHC Board Chair & Professor,<br>Wellness & Health Science                         |
| McKibbons, Dr. Chris         | Physician Services Committee  |
| McCready, Dr. William        | Chair, Northern Ontario Medical Program   |
| McGoldrick, Ms. Debora       | Nurse Practitioner,<br>Northern Clinical Program, Lakehead University             |
| McKinnon, Dr. David          | CEO, Ontario Hospital Association   |
| McMillan, Dr.                | Glengarry Memorial Hospital, Alexandria   |
| Morgan, Dr. Chris            | CCN & Dept. Chair —<br>Cardiology, Sunnybrook & Womens' Health Science Centre     |
| Mulloy, Dr. John             | Dir., Northeastern Ontario Medical<br>Education Committee                         |
| Mousseau, Ms. Joanne         | McMaster University   |
| Muir, Dr. Robert             | Ontario Hospital Association  |
| Murray, Dr. Michael          | Ontario Hospital Association  |

|                                 |   |
|---------------------------------|---|
| Naylor, Dr. David               | Dean of Medicine, University of Toronto   |
| Noyes, Ms. Anne Marie           | Municipal Councilor, Fort Erie  |
| O'Driscoll, Dr. Terry           | Physician Complement Appeal Committee,<br>Sioux Lookout                         |
| Orchard, Mr. M.                 | Community Development Officer,<br>S W Ontario Rural Medicine                    |
| Ostler, Mr. John                | Administrator, Geraldton District Hospital                                      |
| Palkovitz, Ms. Jo-Anne          | Sr. Hlth. Planner, Algoma-Cochrane-Manitoulin-Sudbury<br>District Hlth. Council |
| Parboosingh, Dr. Jean           | Senior Medical Consultant, Health Canada  |
| Parsons, Dr. Wayne              | Physician Services Committee  |
| Pattendon LLB, Mr. David        | CEO, Ontario Medical Association  |
| Petralli, Ms. Vanessa           | Nurse Practitioner, Windsor   |
| Physician Services<br>Committee | All members   |
| Pollard, Ms. Wendy              | Nurse Practitioner, Gateway Community Health Center                             |
| Posluns LLB, Mr. Donald         | Counsel, College of Physicians and Surgeons of Ontario                          |
| Pristanski, Dr. Kurt            | CEO, Glengarry Memorial Hospital, Alexandria                                    |
| Railton, Dr. H.                 | Chief of Staff, Welland County General Hospital                                 |
| Remington, Dr. Jeff             | President, Niagara South Medical Association                                    |
| Robinson, Ms. Donna             | Bancroft Site Administrator, Quinte Healthcare                                  |
| Rosser, Dr. Walt                | Ontario College of Family Medicine  |
| Rourke, Dr. Jim                 | Council of Ontario Faculties of Medicine  |
| Ruckholm, Ms. Ellen             | RN, PHD, Laurentian University  |
| Saddington, Mr. Ron             | President, Thunder Bay Regional Hospital  |
| Saracino, Mr. Bob               | Regional Councillor, Port Colborne  |
| Scaife, Dr. Chris               | Chief of Medical Staff,<br>Lake of the Woods District Hospital, Kenora          |
| Schmidt, Ms. Kirstin            | Representative, Foreign Trained Doctors   |
| Schoales, Dr. Blair             | Chief of Staff, Thunder Bay Regional Hospital                                   |
| Schumacker, Dr. Albert          | Ontario Medical Association   |
| Scott LLB, Mr. Graham           | Ontario Hospital Association  |
| Sehgal, Ms. Aruna               | Policy Advisor, Health Canada   |
| Seltzer, Ms. Jane               | Senior Planning Consultant,<br>Ministry of Health and Long-Term Care            |
| Shantz, Mr. Harold              | Executive Director, Norfolk General Hospital                                    |
| Simmalino, Ms. Isabel           | Community Health Centre, Windsor  |
| Sinclair, Mr. Brad              | Ontario Hospital Association  |

## Appendix 2

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|--------------------------|--|
| Skene, Mr. Andrew        | Executive Director, Dryden General Hospital  |
| Simpson LLB, Mr. Jim     | Legal Counsel, Ontario Medical Association   |
| Stitt, Ms. Pat           | Northwestern Ontario District Health Council, Kenora   |
| Stoddart, Dr. Greg       | Centre for Health Economics & Policy Analysis,<br>McMaster University  |
| Talbot, Ms. Wendy        | Executive Director, Ogden East-End CHC   |
| Taylor, Dr. Robert       | CMPA Hematology — Queensway Carlton Hospital   |
| Tepper, Dr. Joshua       | President, PAIRO   |
| Tesson PHD, Mr. Geoffrey | Academic Vice President, Laurentian University   |
| Theroux, Mr. Guy         | Health Care Consultant   |
| Thoburn, Dr. Michael     | Ontario Medical Association  |
| Thoms, Ms. Jackie        | Community Development Officer  |
| Turnbull, Dr. Jeffery    | Post-Graduate Dean, Ottawa University  |
| Turner, Dr. Andrew       | Family Practitioner, Thunder Bay   |
| Vann, Dr. Patty          | Society of Rural Physicians, Dryden  |
| Vassallo, Mr. Frank      | Ministry of Health and Long-Term Care  |
| Vexler, Dr. Ron          | Chief/Staff, Queensway Carlton Hospital  |
| Vimr, Mr. Mark           | Executive Director, Cardiac Care Network   |
| Wade, Dr. John           | Chair, Resource-Based Rel.   |
| Walker, Mr. Donald       | Value Schedule Commission of Ontario<br>Prog. Consultant — Operational Support,<br>Ministry of Health & Long-Term Care |
| Walker, Dr. Peter        | Dean of Medicine, University of Ottawa; Chair COFM   |
| Watkins, Dr. Todd        | FP- Smiths Falls, Care Del. Network Project, Queens U.   |
| Wexler, Dr. Ron          | Ontario Medical Association  |
| Wills, Mr. Chuck         | CAO, City of Windsor & Co-Chair<br>Physician Recruitment Task Force  |
| Wirth, Ms. Leslie        | Senior Planner, Champlain DHC  |
| Wooten, Dr. John         | Health Canada, Director of Rural Medicine  |
| Zacharias, Dr. Ramesh    | CEO, MED-EMERG   |
| Zalan, Dr. Peter         | FP, Sudbury  |
| Zegarac, Mr. George      | Health Planing Branch Director,<br>Ministry of Health & x Care   |
| Zielke, Dr. Diane        | Red Lake   |

## Doctor Shortage or Oversupply— Who Cares?

If stakeholders can be defined as individuals, groups, organizations, communities, etc. that are affected by certain decisions and policies, there are a number of stakeholders who care or should care about the adequacy of physician supply in Canada at present and in the future. Decisions made today impact on tomorrow's situation so it is important to keep future needs in the forefront of our thinking. Stakeholders include:

### **Patients and their families**

- an undersupply of physicians will impact on the ability of patients and their families to access timely care, services, advice and support that only a physician is able or allowed to deliver.
- lack of access to care and services, perceived as necessary by patients and their families, forces some, especially those who can afford it, to seek care outside of the traditional health care system, such as in the private sector and in alternative therapies, and/or outside of the province/country.
- lack of access to advice, care and services transfers the responsibility for decision-making and care giving to individuals and their families who are voluntary, non-health professionals, most often women. This often translates into "guilt" feelings when the outcome is less than desired or expected.

### **Governments**

- the Canada Health Act guarantees, or at the very least promises, accessible, comprehensive health care services to all Canadians. Canadians value their health care system and expect the system to be there when they need it.
- governments are the predominant payers of health care. In 1998, the public sector funding forecast for Ontario is 66.9% and for Canada 69.7% of total health expenditures. Governments are accountable and want an effective, efficient and well-managed health care system at affordable costs.
- governments are the targets of complaints when public expectations, such as timely access to emergency services, diagnostic tests, treatment and consultations, are not fulfilled. Therefore, they want and need to get it right.

### **Physicians**

- physicians, along with nurses and other health providers, are the frontline workers who interface with patients and their families, and respond to "demands", justified or not. Decisions related to efficiency of the overall system or to population health status are not necessarily the priority issue at the time of critical encounters.
- the available physicians share the caseload — less available physician supply increases the average workload, more physician supply decreases the average workload. There is a servomechanism evident in physician behaviour.
- capping/control of expenditures for physician services does not encourage physicians to speak in favour of increasing physician supply, contrary to the opinions voiced in some quarters.
- there are career cycle and lifestyle issues that impact on professional behaviour and these influences appear to be greater today than they were several decades ago. The increasing percentage of women in the medical profession produces major shifts in the practice of medicine. Many feel these changes are positive and long overdue.

### **Other Health Care Providers**

- there are many other professionals who form the complement of health care providers in Canada, whose roles are changing and evolving. Nurse practitioners, nurse specialists, and midwives are among those whose responsibilities are overlapping with physicians.
- some professional groups, such as nurses, are currently experiencing shortages. Planning models for future workforce needs must take cognizance of emerging trends and the appropriate and desired mix of health care providers.

### **Rural, Northern, Aboriginal and Isolated Communities**

- rural communities are often the first to feel the impact of shortages of health care providers. The needs of rural health communities have not received priority attention in the past but in recent months have become a major focus of attention.
- although we often equate the four types of communities as if they were synonymous, there are very different and unique issues and needs facing these communities that deserve better understanding.
- the geographic distribution of physicians continues to be an issue that deserves attention and innovative solutions. Past discourse has failed to resolve the inequities, and evidence suggests that these may be worsening.
- the mix and number of health care providers should not be defined by standards set by urban communities or by national averages.
- recruitment and retention are major issues for rural and isolated communities.



### **Medical Schools**

- seventy five percent of currently practicing physicians in Canada are graduates of Canadian medical schools and the reliance on Canadian graduates has been increasing steadily since 1980. Enrolment in medical schools is a major determinant of future supply of physicians.
- the full impact of enrolment reductions that started in 1993 will only be felt at the graduating class level in 2001–2002.
- there is a lag time of 6 years for Family Medicine and at least 10 years for Specialists before impact of changes in first year enrolment is felt in the practicing community. Their responsibility, therefore, is to forecast the needs of the next decade, not the present one.
- medical schools are responsible for training the full complement of physicians in this country. In addition to the practicing physician, there are requirements to replenish physicians who are predominantly teachers and researchers, as well as those who enter related health professional activities, such as in industry, governments, professional and non-governmental agencies.

### **Hospitals, Academic Health Science Centres, Community Health Centres, Regional and District Health Councils**

- the venue for postgraduate medical training has changed in past few years, partly related to the need for rural health exposure, resulting in reduced trainees in the traditional acute care setting. Postgraduate trainees provide significant health care services in such settings, and, as a result of the reductions in trainees, the increasing acuity of patients, and the need for 24 hour coverage in some areas, a new breed of "hospitalists" is emerging to provide the necessary care in acute care institutions.
- the acuity of patients in rural and community hospitals is also increasing as a result of reduced opportunities to transfer patients to tertiary care facilities, necessitating provision of services not previously provided. This may lead to requirement for additional physicians and/or different skill sets.
- the move towards regionalization changes the mindset of District Health Councils with respect to adequacy of physician supply to meet the health care needs of the population they serve.

### **Health Economists**

- from an economic viewpoint, the issue is one of opportunity costs, since unnecessary expenditures in healthcare prevent spending in other areas that may ultimately have greater impacts on health and wealth creation. Increasing physician numbers are equated with increasing health care costs, on the assumption that physicians create demands for services.

- the cost containment approach to ensuring the sustainability of a single payer, publicly funded healthcare system needs to be balanced with reasonable access to essential health services, especially as the voice for a parallel privately funded system grows insistent and louder.

It is clear that the perception of a shortage or oversupply of physicians will depend on which stakeholder addresses the question. In the past the policy decisions have been dominated by a few, not by a consensus of all stakeholders. In the future it is essential that all stakeholders be involved in assessment of adequacy and need as well as in the formulation of policies and solutions.

Prepared for Physician Resource Fact Finder Commissioner  
Mamoru Watanabe MD, PHD, FRCPC  
Professor Emeritus, University of Calgary  
December, 1999

## Physician Supply and Distribution Initiatives

Existing and Proposed,

Ontario Ministry of Health, October 1999

| ITEM | INITIATIVE  | DESCRIPTION  | Current Incentive/<br>Educational Programs |
|------|---|--|--|
| 1    | NOMP — Northwestern Ontario Medical Program         | One to two month electives in family medicine and specialties in northwestern Ontario for medical students and residents.<br>Established 1972.<br>Based out of Thunder Bay.  |  |
| 2    | NEP — Northeastern Electives Program                | Similar to NOMP<br>One to two month electives in family medicine and specialties in northeastern Ontario for medical students and residents.<br>Established 1995.<br>Based out of Sudbury.   |  |
| 3    | Family Medicine North Program                       | Family medicine residency training program (2-3 yrs) in northwestern Ontario.<br>Based out of Thunder Bay.   |  |
| 4    | NOFM — Northeastern Ontario Family Medicine Program | Family medicine residency training program (2-3 yrs) in northeastern Ontario.<br>Based out of Sudbury.   |  |
| 5    | NAHSN — Northern Academic Health Sciences Network   | Multi-faceted northern initiative.<br>Announced 1999<br>Based out of Thunder Bay and Sudbury.<br>Initiative includes: <ul style="list-style-type: none"> <li>■ Training programs for medical students and residents (and other health professionals)</li> <li>■ northern youth health career awareness program</li> <li>■ northern outreach program</li> <li>■ regional health science library</li> <li>■ professional development for northern providers</li> <li>■ clinical skills/research project</li> </ul> |  |

|  | ITEM | INITIATIVE  | DESCRIPTION  |
|--|------|---|--|
| <b>Rural/Northern<br/>Medical Training</b> | 6    | ROMP — Rural Ontario Medicine Program.              | Family medicine and specialty training placements of 2-4 mths for medical residents in south-central rural Ontario (beginning 1999).<br>Original program (est. 1995) involved 6 mth family medicine residency placements.<br>Based out of Collingwood Hospital.  |
|  | 7    | SWORM — Southwestern Ontario Rural Medicine Program | Specialty placements of 2-3 mths for medical residents in rural southwestern Ontario.<br>Established 1996/97.<br>Based out of Goderich.<br>Program recently expanded to include extensive undergraduate component.<br>Undergraduate program offers a "rural track" with summer studentship grants and 1-3 month rotations in Years 2-4.  |
|  | 8    | Re-entry pilot (1995-96)                            | Ten (10)-3rd year GP and three (3) psychiatry positions offered to practising physicians; return of service expected.  |
|  | 9    | Re-entry to Postgraduate Medical Education System   | Ten (10) 3rd-year Family Medicine positions and 15 specialty positions offered annually to practising Ontario physicians wanting to pursue postgraduate medical training. Return-of-service in underserved areas expected.<br>Preferred 3rd year family medicine positions are in emergency medicine, anaesthesia and care of the elderly.<br>Preferred specialty positions are in general surgery, obstetrics/gynaecology, internal medicine, psychiatry and anaesthesia.   |
| <b>Recruitment<br/>and Retention</b>       | 1    | UAP Incentive Grant (IG)                            | Health Care professionals relocating to designated underserved areas may be eligible for incentive grants:<br>■ \$40,000 paid over four years for GP/FPs and psychiatrists, relocating to designated northern communities<br>■ \$15,000 paid over four years for GP/FPs relocating to designated southern communities which have been designated for one year and not successfully recruited<br>■ \$20,000 paid over four years for specialists relocating to designated northern communities plus an additional \$20,000 paid over four years if they provide a minimum of 12 days outreach per year<br>■ \$15,000 paid over three years for audiologists, chiropodists, occupational therapists, physiotherapists and speech-pathologists relocating to fill UAP approved vacancies in Northern Ontario. |

| ITEM | INITIATIVE  | DESCRIPTION   |
|------|---|---|
| 2    | Community Assessment Visits                       | Reimbursement for physician's travel costs to visit and assess practice opportunities in underserved communities.   |
| 3    | Specialist Retention Initiative (SRI) Specialists | Eligible specialists have no reduction to annual OHIP billings-annual application/review/approval process.  |
| 4    | Specialist Retention Initiative (SRI) — GP/FPs    | Eligible GP/FPs have no reduction to annual OHIP billings-annual application/review/approval process.   |
| 5    | Community Development Officers                    | Coordinate independent recruitment initiatives to address regional physician health resources issues.   |
| 6    | Physician Job Registry                            | An internet based position registry administered by the OMA to identify and help match communities looking for physicians and physicians interested in moving to underserved communities.   |
| 7    | Health Professions Recruitment Tour and Job Fairs | An annual recruitment tour, held each year at the five health science centres in Ontario, provides an opportunity for designated communities to meet with interested students and establish professionals seeking positions in all disciplines. |
| 1    | Locum Programs                                    | Provide respite and temporary vacancy coverage in designated underserved communities.   |
| 2    | Continuing Medical Education (CME) Program        | The CME program enables rural physicians to access CME opportunities by funding registration, travel, accommodation and associated expenses.  |
| 1    | \$70/hour emergency on-call sessional fee         | \$70/h sessional fee emergency department coverage on nights, weekends and holidays in selected communities.<br>78 community hospitals are eligible for the on-call sessional fee.  |
| 2    | Community-Sponsored Contracts                     | Offers guaranteed incomes to physicians who contract to practise in approved eligible communities. Addresses recruitment and retention issues for those northern communities that require 1 to 2 physicians.                                    |

### Recruitment and Retention

### Practise Supports

### Remuneration

|   | ITEM | INITIATIVE  | DESCRIPTION   |
|---|------|---|---|
| <b>Remuneration</b>                                   | 3    | Northern Funded Group Practice (NFGP) Globally-Funded Group Practice Contracts (GFGPS) APPs | In November 1998, the Northern Funded Group Practice (NFGP) was announced for 22 eligible communities. The NFGP provides incomes to physicians who contract to practise in an eligible community. The NFGP also provides additional payments for more specialized services, payment for emergency coverage in communities with or without a hospital, 37 days of locum coverage per year for vacation and CME, and a retention bonus of \$10,000 at the end of the third year of the contract.<br><br>The NFGP, in November 1998, replaced the GFGP contracts which was offered to 29 underserved communities that require 3 to 7 physicians. |
|   | 4    | Northwestern Ontario Neurosurgical Group Practice Agreement                                 | Global funding agreement covers all neurosurgical and related services and outreach with respect to neurosurgical and related medical services; educational sessions for allied health staff in certain centres, on-call and hospital emergency service coverage.   |
|   | 5    | Discounted Fees for New Physicians  | New physicians practising in oversupplied areas for their specialties discounted 30% in Year 1; 25% in Year 2; and 20% in Year 3.   |
| <b>Additional Support for Underserved Communities</b> | 1    | Nursing Stations/Medical Clinics  | <ul style="list-style-type: none"> <li>■ 21 nursing stations providing primary care services in rural and northern communities unable to support a resident physician</li> <li>■ Stations are usually staffed with a full-time nurse/nurse practitioner &amp; have regular physician visits</li> <li>■ Operational funding is fully provided through UAP</li> <li>■ MDM provided capital dollars for northern stations</li> <li>■ Local agencies i.e. hospitals, public health units, usually provide administrative assistance</li> </ul>  |
|   | 2    | Physician Outreach  | ■ UAP pays physicians to provide regularly scheduled primary care clinics to remote communities which have UAP-funded Nursing stations & to provide telephone back-up to the nurse/NP working at the Nursing Station  |
|   | 4    | Dental Clinics  | ■ Provide regularly scheduled dental clinics on an outreach basis to remote communities in northern Ontario where there is no access to dental care within an 80 km distance  |

| ITEM | INITIATIVE                   | DESCRIPTION   |
|------|------------------------------|---|
| 5    | Visiting Specialists Clinics | <ul style="list-style-type: none"> <li>■ UAP pays specialist physicians to provide specialist services to patients &amp; educational services to health care providers at outreach clinics in approved northern communities. Physicians can choose to bill fee-for-service or receive a stipend for their services</li> </ul>   |
| 6    | Designation as Underserved   | <ul style="list-style-type: none"> <li>■ A formal request and approval process</li> <li>■ Underserved designation is a prerequisite to signal eligibility of communities and physicians for program benefits of the UAP</li> <li>■ Designation enables targeting of UAP benefits which are aimed at encouraging health practitioners to relocate &amp; remain in northern and rural Ontario</li> <li>■ Both southern and northern communities can request designation as underserved for specialist services</li> </ul> |

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**Additional Support for Underserved Communities**

Summary of Physician Supply and Distribution  
Initiatives, Existing & Proposed  
Ontario Ministry of Health, October 1999



## **Sample Retention Program for Physicians in Underserved Areas**

A retention program might, for example, include the following type/level supports:

- retention incentives in northern sites of \$15,000 at the end of the 2nd year of service, \$20,000 at the end of the 3rd year and \$25,000 at the end of the 4th year and each year thereafter for at least six years
- retention incentives in southern sites of \$10,000 at the end of the 2nd year, \$12,500 at the end of the 3rd year and \$15,000 at the end of the 4th year and each year thereafter for at least six years
- long service leave for physicians in northern communities equal to 2 weeks of paid vacation in the 2nd year, 3 weeks in the 3rd year, and 4 weeks in the 4th year and each year thereafter
- long service leave for physicians in southern communities equal to 1 weeks of paid vacation in the 2nd year, 2 weeks in the 3rd year, and 3 weeks in the 4th year and each year thereafter
- paid maternity leave for all female physicians for 12 weeks to bring them up to 75% of their regular earnings, based on average income over the two previous years
- an information technology grant of \$3,000 every three years (conditions to be determined) that would help the physician purchase equipment and services needed to make better use of information technology, including telehealth and telemedicine.



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# **Lakehead**

JAN 1991

225 Oliver Road  
Thunder Bay, Ontario  
Canada P7B 4E1  
Tel: (807) 342-2100  
Fax: (807) 342-3100

September 24, 1991

To: Robert J. McKendry  
Physician Human Resources Fact Finding Commissioner  
525, Smyth Road, Room 112, Box 112  
Ottawa ON K2H 8L5

Dear Dr. McKendry:

Thank you for your letter of September 17, 1990 in which you address a number of issues surrounding the possibility of a medical school dedicated to training physicians in rural health, including Aboriginal health issues, with sites in Sudbury and Thunder Bay.

We consider that there is a strong interest on the part of both of our Universities in working together to create a new medical school devoted to rural and remote health issues and located in the north. As you will know from your consultations, there is enthusiastic support from the physician associations, from the hospitals and from local government officials in each of our regions. Most important of all we know that the northern populations that we serve would consider such an initiative a major expression of confidence in the present and future of the region.

We would like to reiterate the specific issues raised in your letter. We have examined carefully the accreditation proposals put down by LCME/CACMS for Canadian and U.S. medical schools and we believe that we can meet the administrative criteria established for "interprofessionally separated programmes". While the details of programme governance, financing and admission will have to be worked out, we would start out from the principle of the co-equal leadership role of our two institutions and we envisage a regional administrative structure that would oversee the programme. We would also encourage the potential involvement of Northern University in North Bay work, which is currently in its infancy. Its terms an important element in our secondary education in northern Ontario. We will be standing with our medical schools in North America with a view to ensuring that we adopt an administrative model that meets the accreditation standards.

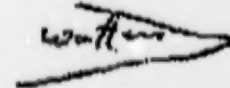
September 24, 1969  
Dr. McRae

As regards allied health professions programmes, both Laurentian and Lakehead Universities have well-established Nursing programmes offering B.Sc.N and Post ND degrees and Nurse Practitioner Certificates. Laurentian offers these programmes in both French and English and has a well developed distance education capacity in this area. Lakehead University offers a range of nursing programming addressing structural health issues. Both universities have programmes in Kinesiology, Gerontology and Social Work. Laurentian offers Midwifery (conjointly with McMaster and Ryerson) and a Master's programme in Orthoptics (French Speech Pathology). Laurentian offers a Ph.D. in Clinical Psychology. Both Universities have progressive and research strengths in chemistry and biomedical sciences. The strength in health oriented programmes, together with a wide range of offerings in the social sciences and a university recognised health research profile, would afford an excellent academic environment to support a medical school.

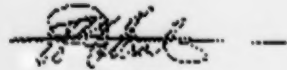
We believe that there would be significant Federal interest in the formation of a new medical school located in the North and directed at rural health issues. Both of our institutions view the development of original programming as central to our mission and have an excellent track record in this area. Laurentian University has a core mandate and a capacity to offer its programmes in French and service the francophone population of the region. Both universities are closely associated with significant education technology investments in our systems, which will afford important opportunities for technology development in both service delivery and health education practices.

The attached brief documents the case which we believe can be made for a northern based medical school addressing rural health needs. Both universities will devote their collective energies to ensuring the success of this initiative. The timing could not be better.

Sincerely,



Dr. Jean Martin  
President, Laurentian University



Dr. Fred Cohen  
President, Lakehead University

cc: Dr. Gifford, Training Director Health Services

## **The Case for a Northern and Rural Medical School**

BY JEAN WATTERS, PRESIDENT, LAURENTIAN UNIVERSITY  
FRED GILBERT, PRESIDENT, LAKEHEAD UNIVERSITY

The current crisis in the under-supply of physicians across Canada is experienced particularly acutely in Northern Ontario and in other rural and northern jurisdictions. It is apparent that merely increasing the enrolment in existing academic health science centres does not resolve the issues faced by underserved areas. Recruitment and retention of physicians is a chronic problem in northern and rural areas even when the supply elsewhere is plentiful. It is time to think about this issue in a new way. It is time to think about developing a capacity for health science education and training located in the areas where the need is greatest. It is time to think of an innovative northern medical school that would serve, not only this region, but regions across the country which are disadvantaged by their distance from metropolitan concentrations of health expertise.

### **The Goal**

To create a northern rural medical school that will:

- Develop and provide high quality medical education shaped for the needs of rural/regional and northern populations.
- Produce more doctors with the knowledge, skills and interest in practising rural and northern medicine.
- Provide an academic and research infrastructure to support physicians teaching and practising in the north.

### **The Case**

The idea of a northern medical school has long been a dream of people in this region who have experienced concretely the effects of a state of dependency for the medical expertise necessary to meet their health needs. The following arguments support the idea of the development of a northern medical school:

- At the heart of the problem of physician recruitment and retention in the north is the fact that too few young people from the north consider entering health science career paths. The application rate of northern students to medical school is only half that in the south and those that do apply must go to the south for their training.
- Southern medical schools naturally orient their students to servicing the urban populations that surround them. From a southern vantage point, the north almost inevitably

represents a remote hinterland offering few opportunities for professional advancement.

- While enhanced incentive schemes can be effective in addressing the additional economic and social costs of associated with rural practice, they do not offer a sustainable solution to reverse the persistent trend toward urban concentration of medical expertise.
- Enhancing the orientation of northern students to health careers, locating their training in the north and designing it to address the needs of a northern rural environment represents the most effective long-term sustainable solution to chronic recruitment and retention issues. The high retention rate of graduates of the northern-based family medicine programmes, originating in the University of Ottawa and McMaster University, but administered in Sudbury and Thunder Bay through NOMECC and NOMP points the way to what can be achieved academically from a northern base.
- The high volume communications capacity currently being established in northern Ontario offers a rich potential for the development of telehealth strategies designed to overcome the barriers of distance and low population density. The capability of a telehealth network to serve teaching and research purposes in addition to its care delivery function calls for innovative approaches to medical education.
- Developing a high quality northern-based health research capacity directed at the health issues of northern residents and focusing on issues of rural health delivery is a key to reversing the drain of health expertise to the centre. It will also be a major factor in attracting and retaining highly skilled health professionals whose career and advancement opportunities will be enhanced by access to leading edge research projects.

#### **The Resource Base**

There are three Universities in Northern Ontario, Lakehead, Laurentian and Nipissing each of which draw their students primarily from the northern population. Lakehead and Laurentian have a full range of basic science, arts and professional programmes. Nipissing is known for its strong education programme and its focus on the arts. All three universities have graduate programmes at the master's level and have strong research track records linked to their regional economies. Lakehead also has a Ph.D. programme in Clinical Psychology and Laurentian currently is planning Ph.D. programmes in biomolecular science, applied human development, biology and earth sciences. Lakehead will soon offer a Ph.D. in Education and is exploring others including Mathematics, and Forest Sustainability.

**HOSPITALS** Both Sudbury and Thunder Bay have restructured Hospitals which furnish a significant opportunity to develop a teaching and research capacity far exceeding previous resources. The fact that major new construction will be taking place affords an rare opportunity to ensure that, in collaboration with the northern universities, innovative teaching and research facilities can be installed which will target rural health education. It also needs to be noted that both sites have well-developed regional cancer centres with impressive capacity for teaching and research.

**PHYSICIAN NETWORK** The Northwestern Ontario Medical Programme (NOMP) and the Northeastern Ontario Medical Education Corporation (NOMECE) offer clinical teaching programs for family medicine residents, medical student electives, specialty residents and several allied health programs. Both NOMP and NOMECE have extensive networking of physician preceptors on which to build. In both areas, the networks reach out to physicians in the community and across the North.

Currently, the north's manpower shortages will be a challenge in the short term, but with planning and funding for medical school, an opportunity will be created for new specialists and families to move north, thus building on the physician teaching base and enhancing some specific clinical areas. One collateral benefit from the presence of a Northern medical school will be to attract new specialists into the area who can serve both academic and urgently needed health care services.

**PARTNERSHIPS** An important characteristic of the Northern environment is the strong network of partnerships that exists between institutions serving the health and educational needs of northern populations. The nucleus for a collaborative medical school will be the existing highly regarded NOMP and NOMECE programmes, which are very successfully training students in undergraduate clinical and post-graduate clinical areas. The recently funded Northern Academic Health Science Network (NAHSN) extends these achievements into new areas of endeavour:

- Undergraduate initiatives: summer studentships, interdisciplinary training program, clinical placements for rehabilitation students, core clerkship rotations (8 weeks), expanded electives.
- Postgraduate initiatives: Royal College Specialty Medicine placements (up to 6 months).
- 3 year development funds for a Northern Youth Health Career Awareness Program.
- Dedicated NAHSN clinical learning sites throughout the North including videoconferencing and virtual library linkages.
- 3 year project funds for clinical skills and research development.
- NAHSN — program development and evaluation of the Network.
- Health Science librarian and regional health library network.
- Administrative coordination of the Northern Outreach Program and the Northern Outreach Library.
- Capital costs for facility renovations, community accommodations, equipment.

These pan-northern clinical teaching initiatives represent key foundational building blocks for a future Medical School.

On the university side, Lakehead and Laurentian have a history of collaborating on common health research efforts, such as the successful Centre for Rural and Northern Health Research (C RaNHR) jointly administered from the two campuses. Both universities are key partners in a current project to have rural health research defined as a core area for the proposed Canadian Institute of Health Research (CIHR).

In Sudbury, a close relationship between Sudbury Regional Hospital, the Northeastern Ontario Regional Cancer Centre and Laurentian University has formed the basis for combining funds from a major donor with a successful application to the Ontario Research and Development Challenge Fund for a Chair in Cancer Research linking the three institutions. The Chair will direct the tumour biology group at the Cancer Centre and develop a Ph.D. programme in Biomolecular Science at the University. The three institutions have signed a memorandum of agreement aimed at developing a conjoint Health Research Institute that would develop a new critical mass of research capacity serving the north.

In Thunder Bay there is a close relationship with the Thunder Bay Regional Hospital as its new acute care unit is being built on land donated by Lakehead University. Also the Northwestern Ontario Regional Cancer Centre and Lakehead have several joint projects in the nuclear, microbiological and psycho-social areas.

**RESEARCH CAPACITY** The delivery of high quality health care services and the existence of leading edge research and teaching programmes go hand in hand together, each domain lending energy and direction to the other. The health research capacity within the northern universities and the health institutions with which they interact is considerable. Both Laurentian and Lakehead have developed aggressive strategies to develop their health research capacity. At Laurentian there is particular strength in the areas of biochemistry, molecular biology, medical physics, kinesiology/ergonomics, rural health issues and occupational health and safety. The successful application to the Ontario Research and Development Challenge Fund for a Chair in Cancer Research is the first step in a more ambitious strategy underway to develop a Northern Health Research Institute located on the campus of the new Sudbury Regional Hospital and spanning the Northeastern Ontario Regional Cancer Centre and the University. Lakehead has research strengths in aging and health, clinical psychology, kinesiology and aboriginal health in addition to a broad spectrum of expertise in the basic sciences and social sciences.

**REGIONAL STRATEGIC PLANNING** Northern cities, because of their historical dependence on natural resource industries to sustain their economies have been particularly vulnerable to global market fluctuations in the prices of the commodities they produce. The acquisition in the north of the organizational resources for the development of health and social service delivery and the establishment of post-secondary educational and research institutions to support them is a key element in the strategies that northern communities have evolved to offset the cyclical effects of resources-based economies.

**THE FEDERAL LINK** The Federal Minister of Health, the Hon. Allan Rock has given a high priority to addressing the health needs of rural Canadians and has created the Office of Rural Health under the direction of Dr. John Wootton to facilitate the development of innovative rural health initiatives. While the jurisdiction over health services and education remains a provincial matter, there is a clear Federal interest in innovative capacity development to service geographically disadvantaged areas as expressed by Minister



Rock in recent visits to Thunder Bay and Sudbury. There is an obvious potential for complementing any provincial initiative for a northern/rural medical school with federal contributions in the areas of a) aboriginal health care issues, b) telehealth capacity and c) research related to rural health delivery issues.

### **Innovative Approaches to Medical Education**

The development of a new medical school affords an unprecedented opportunity to take advantage of recent developments in the sciences that inform medical practice and to make best use of the innovative pedagogical practices that have been developed within existing medical schools. The latest advances in biomolecular sciences, e.g. cellular biology, molecular biology and molecular genetics call for not only new scientific content, but also new pedagogical approaches which focus on an understanding of underlying principles rather than mastery of information. A learner-centred approach which leads the student to link scientific learning with the problem-solving challenges of everyday medical practice. A new appreciation of the social and ethical issues surrounding medical practice, of the importance of epidemiology and of the economics of health care can be incorporated into the curriculum.

Most important of all, the proposed new medical school will focus on issues of health care delivery within a rural context. It will concentrate on issues of patient care and health promotion as they are encountered in those areas of Canada which are not part of the major urban metropolitan areas. Aboriginal health care needs will occupy a special place within the curriculum as will those of francophone communities. The imaginative use of information technology, both as a mechanism of care delivery and also as a potential teaching and research channel will be a key feature of the new approach.

### **Inter-University Governance Issues**

It is recognized that a Medical School to serve the north and drawing on the university and health science resources in the region, must be creative in envisaging an administrative and governance configuration that would capture the best that each of the contributing institutions and the medical and clinical expertise throughout the region have to offer. Careful attention has to be paid to the accreditation criteria laid down by LCME/CACMS for programme approval. There must be clear lines of academic and fiscal responsibility and these must be consistent with the guidelines for multi-site programmes. The two main sites for the proposed programme will be Lakehead University and Laurentian University and these institutions would serve as co-equal partners forming the academic foundation of the programme. A joint implementation committee would oversee the development of a detailed plan for addressing the various issues of governance, financial management and admission. Nipissing University, located in North Bay, while primarily an Arts institution, has become an important element in post-secondary education in the north and has potential for significant involvement in this venture. It should also be noted that Laurentian University has affiliate institutions, Algoma

University College in Sault St. Marie and the College Universitaire de Hearst, both of which could provide vehicles for extending medical education throughout the northern region. The existing frameworks of NOMP and NOMECC will furnish an excellent basis for coordinating the academic contribution from the medical community throughout the northern region.

### **Conclusion**

There could not be a better time to consider the development of a new medical school located in the north and addressing the needs, not only of Northern Ontario, but of rural areas throughout Canada which find themselves marginalized from the centres of medical expertise. The building of a new medical school would present an exciting opportunity to take advantage of the latest developments and approaches in Medical Education and to adapt those development to the mission of rural health education. This brief has outlined the strong base of resources that already exists within the north, both within the medical community, the hospital systems and within the northern universities. We also have an outstanding record of making partnerships work across institutional boundaries, we have adopted innovative ways of extending postgraduate medical education opportunities for northern residents and we have an information technology capacity for addressing issues of distance that is unequalled in other Canadian regions. But perhaps the most important factor is that there is a resolute will to make this initiative work, to aim for the highest level of excellence and to direct that excellence at health issues which have long suffered neglect. We believe that the vision of a medical school in the north is powerful enough and the will to achieve it firm enough that the obstacles that undoubtedly will arise can be readily addressed.

1999 October 8

Dr. Robert McKendry  
Physician Resources Fact Finding Commissioner's Office  
The Ottawa Hospital General Campus  
Room 7419 501 Smyth Road  
Ottawa, Ontario  
K1H 8L6

Dear Robert,

Re: Northern Ontario Rural Medical School

Your studying time will soon be coming to an end and I thought it important to get back to you on the question of a Northern Ontario rural medical school. I am convinced, after further careful review and consideration that the establishment of a Northern Ontario rural medical school is absolutely the right decision for Ontario at this point in time. It seems clear that we need to increase medical student numbers in Ontario (that is a whole other discussion topic re how many). It is also clear that a simple across-the-board increase and continuing to train under the system that we've been using for some time will not produce the desired effect of improving rural, northern and regional distribution of physicians.

The short answer is that a northern rural medical school will graduate significantly more students with the knowledge, skills and interest for rural and northern practice. Not only that, but it will improve recruitment, retention and support of physicians in Northern Ontario dramatically.

It will probably need to be combined with a modest increase in enrolment in at least The University of Western Ontario which is, as you know, located in Southwestern Ontario which is by any measure relatively and absolutely short of both family physicians and specialists compared to Central and Central Eastern Ontario. In addition, Western has already changed its curriculum to include a comprehensive, integrated rural and regional component from year 1 that is developing very successfully. But that, again, is another issue and I will focus the rest of my discussion on the long answer as to why Ontario should develop a Northern Ontario rural medical school.

Evidence from the United States and other locations clearly shows that medical schools that have a mission to produce more students with the knowledge, skills and interest in rural practice, are located in a large rural area, have a curriculum that provides a rural focus and experience throughout medical school and support and involve a significant rural faculty have a dramatically higher percentage of students that ultimately locate in rural areas than other medical schools. The opportunity to develop such a focused medical school in Ontario presents itself now and it would be a mistake not to move this forward.

I will use the COFM framework to show how a Northern Ontario Rural Medical School fits in well with the COFM Provincial Plan for Rural and Northern Medical Education and will outline for you the significant advantages of a Northern Ontario rural medical school that cannot be achieved to the same degree by simply expanding and linking enrolment at the 5 traditional southern medical schools.

## A Undergraduate Medical Education

### COFM OBJECTIVES:

- Develop more exposure, knowledge and interest in rural and northern medicine.
- Medical student entry positions should be increased with a focus on rural and northern medical education\*

### COFM RECOMMENDED STRATEGIES

- 1 Encourage the successful application of more rural and northern background students into medical school.
- 2 Special consideration and support be given to Aboriginal students.

### NORMS ADVANTAGE

Separate entry for NORMS medical students would self-select for people who are interested in a northern/rural education in preparation for a northern/rural practice location.

COMMENTS Students from a northern and rural background and students who have a significant interest in northern and rural medical education and ultimate practice location in a northern or rural location will be much more likely to apply than students who are largely southern/urban background and/or who are most interested in doing their medical education in a large southern urban location and ultimately practise in a large southern urban location. There is significant medical education literature that shows that student background and interest when selected for medical school is the most important factor in ultimate practice location.

Also, students who enter NORMS will be much more likely to meet spouses from the northern or rural areas during their medical education than students who take their medical education in southern universities. This is important as spousal factors are crucial to practice location choice by graduating physicians.

This would be an excellent opportunity to provide pre-admission preparatory support for aboriginal background students which are severely under-represented in Canadian medical schools and as Canadian physicians.

## Curriculum and Experience

### COFM RECOMMENDED STRATEGIES

- 1 Build rural and/or northern medicine as a component into the undergraduate medical school curriculum for most students.
- 2 Develop extensive rural and northern medical education for some students.
- 3 Emphasize:
  - a) understanding rural people and their illnesses
  - b) appropriate investigation and treatment and use of resources in a rural setting
  - c) appropriate use of regional support for patient care including bidirectional information and patient transfers
- 4 Provide positive rural and northern doctor role models.

### NORMS ADVANTAGE

- Rural and northern focus would be comprehensively integrated into the curriculum from day one throughout all the medical school.

COMMENTS This can best be accomplished if most of the medical education is done in Northern Ontario. NOTE: Medical school education has traditionally been divided into the preclinical years 1 and 2 and the clinical years 3 and 4. With the more recent curriculum such as that at The University of Western Ontario, these boundaries begin to blur with clinical experience being introduced earlier and the preclinical years having clinically applied teaching of the basic science rather than separate basic science courses. Furthermore, information technology advances allow distant site lectures to be done by experts in other parts of the province and other parts of the world. It may be necessary to fly in a small number of experts in limited basic science fields for short 1-2 week modules, but this could easily be accomplished. Distance education information technology would also need to be used to link in with experts in other locations on an as-needed basis. Much of the education in the first 2 years, however, will be taught by clinicians and not basic scientists.

It would probably be best to have the students each have a month that they could take in one of the 5 southern universities in each of years 1 and 2 as well as each of years 3 and 4. (I am getting too detailed here, time to back up.)

Having the students attend the first two years at a Southern Ontario medical school would defeat much of the purpose of a northern rural medical school, particularly with regard to their focus and experience and their location of meeting of significant others. It would also require significant expansion of medical school faculty and facilities at Southern Ontario medical schools. This would be better done cohesively as part of a 4-year integrated program at NORMS. That draws on expertise and linkages to the Southern Ontario medical schools. There is excellent evidence in the literature that decentralized medical school education can be done very effectively as long as there is

appropriate faculty development and support and information technology connection and support.

### **Clinical Experience**

#### **NORMS ADVANTAGE**

- NAHSN has well-developed and continues to develop excellent clinical placements for medical students. This major part of NORMS is already being done and developed through NAHSN's excellent developing network of clinical teachers.

## **B Postgraduate Rural Family Medicine Education**

#### **COFM OBJECTIVES**

- Educate more family physicians for practice in rural and northern communities.
- Educate more family physicians skilled in emergency medicine and obstetrics to practise in rural and northern communities.

#### **NORMS ADVANTAGE**

Northern Ontario has developed 2 highly rated and respected family medicine education programs that have demonstrated success at doing this (NOMP-FM in Thunder Bay and NOFM in Sudbury). These provide a natural choice for students graduating from NORMS medical school. These programs may need to be expanded. They have had significant traditional support and affiliation with McMaster University and the University of Ottawa respectively. It would be expected that that support and affiliation will continue and also be linked to NORMS.

## **C Postgraduate Advanced Rural Family Medicine Skills Education**

#### **COFM OBJECTIVE**

- Educate more family physicians with advanced skills, especially G.P. anaesthesia, obstetrics, emergency medicine, surgical skills, mental health, Aboriginal health and other areas of community need.

#### **NORMS ADVANTAGE**

The two family medicine training programs in Northern Ontario already offer PGY3 training positions. As per the COFM Plan, these positions will need to be expanded but the infrastructure development is largely there. These, as well, have had the advantage of being affiliated with the University of Ottawa and McMaster University and eventually can be linked as well to NORMS.

NAHSN already offers significant electives for residents at other universities to have northern electives. This would, of course, continue under a NAHSN/NORMS organizational umbrella.

## D Postgraduate Specialist Education

### COFM OBJECTIVES

- Educate more general specialists, particularly in general surgery, internal medicine, psychiatry, paediatrics, obstetrics and anaesthesia for mid-sized southern and mid- and large-sized northern communities.
- Educate selected subspecialists for large northern communities.

### NORMS ADVANTAGE:

NAHSN already offers significant electives for specialty residents from the 5 Ontario medical schools to have northern electives. This would, of course, continue under a NAHSN/NORMS organizational umbrella.

NAHSN is already taking initiatives to develop northern focused postgraduate specialty education in partnership with the 5 Ontario medical schools. This would be co-ordinated under a NAHSN/NORMS umbrella.

## E Continuing Medical Education

### COFM OBJECTIVE

- Develop, provide and support continuing medical education for all rural and northern physicians.

### NORMS ADVANTAGE

- This is already being developed under the NAHSN proposal funding and will be consolidated under a NAHSN/NORMS organization.

## F Faculty Development

### COFM OBJECTIVE

- Develop and support more rural and northern faculty.

### NORMS ADVANTAGE

- NORMS would recruit and retain an increased number of specialists for Northern Ontario who would have dual academic and clinical roles.



**COMMENTS** This is one of the major advantage of NORMS over any other approach to this. It has been shown in the rural medicine education literature that communities that have physicians involved in teaching are more successful in both recruiting and retaining their physicians. Northern Ontario is particularly short of specialist physicians. A NORMS would provide an excellent attraction to physicians to take a dual academic and clinical role which would definitely add to the recruitment and retention of specialists in Northern Ontario. Some specialists in Northern Ontario will want to take on this dual role. The funding and support of the medical school would provide an excellent opportunity to attract other physicians with that interest. NORMS would also provide major faculty development and support for all physicians involved in teaching throughout Northern Ontario. Much of this latter work has been started and is being developed by NAHSN. This would be further consolidated under a NAHSN/NORMS co-ordinating structure.

## G Research/Outcome Measures

### COFM OBJECTIVE

- Develop, provide and support rural and northern research including outcome measures of rural and northern medical education.

### NORMS ADVANTAGE

- NORMS would also focus on research that is particularly related to rural and northern health and illness patterns as well as rural and northern health delivery and best practice models.

**COMMENTS** Rural medicine research in Canada lags far behind that in both Australia and the United States. Some of the best rural and northern research in Canada is already being done in northern Ontario through the Centre for rural and Northern Health Research in Sudbury. A NORMS would provide national leadership in rural and northern health research that would be directly applicable to improving patient care. NORMS would partner with other universities that share a similar focus to advance this unique area of medical research, possibly under the new Canadian Institutes of Health Research structure. In addition, NORMS would partner and link with other universities to be involved in province-wide research in a multi-disciplinary, multi-centre approach.

## H Program Support

### COFM OBJECTIVE

- Provide the financial, physical and human resources that are required for rural and northern learning and teaching and educational research.

### NORMS ADVANTAGE

- NORMS would be the most effective way of educating more students with the knowledge, skills and interest for rural and northern practice. In addition, the significant collateral benefits such as directly recruiting and supporting more in particular specialist physicians in Northern Ontario.

**COMMENTS** Expanding Ontario's medical school numbers will have significant ongoing costs no matter where they are placed. There is no question that rural and northern medical education, no matter how it is organized, is more expensive because of student and resident travel and accommodation costs and preceptor/faculty development and support. Nevertheless, it is clear that simply training more doctors in Toronto, Ottawa, Kingston, Hamilton or London will not achieve the educational goals of producing more graduates for rural and Northern Ontario. It is clear that we need to provide more of a focus on rural and regional medical education at the southern universities. This is particularly true in Southwestern Ontario. A NORMS, however, would be cost-effective in particular because its whole mission would be to provide rural and northern-focused medical education and in addition there would be significant collateral benefits of faculty development and support that would directly and indirectly improve recruitment, retention and the quality of and access to medical care in Northern Ontario.

## I Organization Framework

### COFM OBJECTIVES

- Provide needs-driven, evidence-based, learner-centred, and outcome-measured education for physicians for rural and northern communities.
- Provide program support for rural and northern learning and teaching.
- Develop and expand current foci of rural health care education programs currently underway in the province.
- Strengthen functional networks and partnerships among medical schools, hospitals, practising physicians and the Ministry of Health to co-ordinate and develop rural and northern medical education.
- Maintain and enhance the rationale and spirit of NAHSN.
- Develop Rural Academic Health Science Network to link and co-ordinate rural/community medical education programs in Southern Ontario.

#### **NORMS ADVANTAGE**

- NAHSN has already developed significant organizational structure that can be further developed into NORMS.
- Partnership with Lakehead/Laurentian with strong linkages with the University of Ottawa, McMaster University, Queens University, The University of Western Ontario and the University of Toronto.

**COMMENTS** This is undoubtedly the greatest challenge in the development of a NORMS — geographically, demographically and politically. NORMS would need to be a Northeast and Northwest Ontario partnership. Practically speaking there would need to be functional, strong linkages with each of the 5 medical schools to ensure the most effective development of Northern Ontario rural medical education spanning early medical school to senior residency. The need for two major sites, i.e. Thunder Bay and Sudbury makes it more complicated and challenging but not impossible. It would likely be doomed to failure if it were perceived in the north as a satellite campus of any or all the southern medical schools.

#### **CONCLUSION**

There is good evidence from the world literature to support the development of NORMS as an effective way to address both medical school education and support recruitment and retention of physicians in Northern Ontario. While many will say that rural medical education evidence is weak, it is in fact relatively strong compared to the evidence for much of what is currently and traditionally done in medical education at undergraduate, postgraduate or continuing medical education. In fact, my book, "Education for Rural Medical Practice: Goals and Opportunities, An Annotated Bibliography," includes over 350 references directly related to rural medical education.

The opinions given here are my own and NOT the official position of The University of Western Ontario. You might note that I am in a potential conflict of interest here in recommending the development of a NORMS as opposed to recommending only an expansion at southern Ontario universities including Western. I have outlined what I feel, however, is the best synthesis of the needs and most current understanding of rural and northern medical education. It is clear in terms of our own role at Western that we are very committed to and have embarked on a major focus on rural and regional education at Western and will also be providing major linkage with the north in terms of elective opportunities and specialty residency positions. I do not feel the Northern Ontario Rural Medical School changes our response to Southwestern Ontario's needs, but I do, however, feel that now is the time to make a commitment to a Northern Ontario Rural Medical School, making a major leap forward while at the same time providing the appropriate rural and regional focus at the Southern Ontario universities.

I hope this has been of some help to you. I look forward to discussing this with you further.

Best regards,

James Rourke

MD, CCFP(EM), MCLSC, FCFP, FAAFP

Director

Southwestern Ontario Rural Medicine Education, Research and Development Unit  
(SWORM)

## **More Benefits of a School for Rural Medicine**

### **Health Care Services**

- people living in northern Ontario would have more timely access to a wider range of health services closer to where they live.
- communities would find it easier to attract and retain physicians and other health care providers.
- in addition, training physicians along side nurse practitioners and other health professionals would encourage professional socialization and should lead to better working relationships.

### **Health Care Costs**

- the Ministry of Health would be able to significantly reduce the cost of transporting northern patients to other centres for care.
- with more physicians making rural practice their preferred career choice, the ministry would also be able to reduce the cost of physician recruitment/retention incentives.

### **Health Education/Development and Research**

- a faculty of recognized rural health experts would be a resource for the rural health programs in the existing medical schools, and improve the quality and standard of rural health education/training.
- specialty training programs in rural/northern sites would be easier to establish.
- having a faculty of rural health experts would lead to an increase in rural health research, which would lead to significant improvements in rural health care.
- an integrated, single-focus rural Family Practice medical education centre would be a critical support for practitioners - from students-in-training to retirement.
- with Laurentian University and the Lakehead University as equal partners in the enterprise, they would develop effective working relationships which could extend to collaborative programs in other faculties.

**Regional Economic Growth**

- a medical school has the potential to bring significant economic growth to the north, to stimulate economic development and the development of a research infrastructure and other associated resources.
- the potential economic impact calls for a developmental partnership between all levels of government including such provincial ministries as Health, Northern Development & Mines, and Education in order to design funding and other support resources.

## OMA Survey Questionnaire

September 1999

- 1 In your opinion are the number of physicians in your specialty approximately appropriate for the current population needs?  
In Canada — Yes/No, Over/Undersupply — Mild, Moderate, Severe;  
In Ontario — Yes/No, Over/Undersupply — Mild, Moderate, Severe; Don't know.)
- 2 If there is a perceived lack of physicians to meet current societal needs, can you suggest any (semi) objective measures that might be used to verify and/or monitor this situation?
- 3 In your opinion will there be a sufficient number of physicians in your specialty to meet the needs of the population five years from now?  
In Canada — Yes/No, Over/Undersupply — Mild, Moderate, Severe;  
In Ontario — Yes/No, Over/Undersupply — Mild, Moderate, Severe; Don't know.
- 4 If there is currently a lack of physicians in your specialty, what are the most important reasons for this? I.e. supply or retention issues, changes in practice patterns, attitude, disease prevalence etc.
- 5 (A) What suggestions do you have to better match the supply of physicians in your specialty with societal needs — short and long term?  
  
(B) What action(s) would be required to implement your recommendations?
- 6 Is the geographic distribution of physicians in your specialty approximately appropriate to societal needs?  
Yes, Don't know, No — is maldistribution Mild, Moderate, Severe;  
Please explain.
- 7 Could non-physician health care providers (e.g. extended role nurses, midwives, medical technologists etc.) be deployed to provide some components of health care in your specialty?  
Yes/No — Explain.
- 8 Other suggestions or comments.



## OMA Survey Summary

### Current Ontario Physician Workforce

### Ontario Physician Fact Finding Commission

| OMA SPECIALTY              | IS THE CURRENT SUPPLY ADEQUATE? |    |                    |          |        | DOES DISTRIBUTION MEET SOCIETAL NEEDS? |    |                    |          |        |
|----------------------------|---------------------------------|----|--------------------|----------|--------|--|----|--------------------|----------|--------|
|                            | YES                             | NO | Degree of Shortage |          |        | YES                                    | NO | Degree of Shortage |          |        |
|                            |                                 |    | MILD               | MODERATE | SEVERE |  |    | MILD               | MODERATE | SEVERE |
| Anesthesiology             |                                 | ■  |                    |          | ■      |  | ■  |                    | ■        |        |
| Cardiac Surgery            | ■                               |    |                    |          |        | ■                                      |    |                    |          |        |
| Chronic Pain               |                                 | ■  |                    | ■        |        |  | ■  |                    |          | ■      |
| Dermatology                |                                 | ■  |                    | ■        |        |  | ■  |                    | ■        |        |
| Emergency Medicine         |                                 | ■  |                    | ■        |        |  | ■  |                    | ■        |        |
| Endocrinology & Metabolism |                                 | ■  |                    | ■        |        |  | ■  |                    |          | ■      |
| General & Family Medicine  |                                 | ■  |                    | ■        |        |  | ■  |                    |          | ■      |
| General Surgery            | ■                               |    |                    |          |        | ■                                      |    |                    |          |        |
| Geriatrics                 | ■                               |    |                    |          |        | ■                                      |    |                    |          |        |
| Genetic Medicine           |                                 | ■  |                    |          |        |  | ■  |                    | ■        |        |
| General Internal Medicine  |                                 | ■  | ■                  |          |        |  | ■  | ■                  |          |        |
| Laboratory Medicine        |                                 | ■  |                    |          |        |  | ■  |                    | ■        |        |
| Nephrology                 |                                 | ■  |                    |          | ■      |  | ■  |                    |          | ■      |
| Neurosurgery               |                                 | ■  |                    |          |        | ■                                      | ■  |                    |          |        |
| Nuclear Medicine           |                                 | ■  |                    |          | ■      | ■                                      |    |                    | ■        |        |
| Obstetrics & Gynaecology   |                                 | ■  |                    |          | ■      |  | ■  |                    |          | ■      |
| Otolaryngology             |                                 | ■  |                    |          | ■      |  | ■  |                    |          | ■      |
| Ophthalmology              |                                 | ■  |                    |          | ■      |  | ■  |                    | ■        |        |

| OMA SPECIALTY       | IS THE CURRENT SUPPLY ADEQUATE? |    |                    |          |        | DOES DISTRIBUTION MEET SOCIETAL NEEDS? |    |                    |          |        |
|---------------------|---------------------------------|----|--------------------|----------|--------|--|----|--------------------|----------|--------|
|                     | YES                             | NO | Degree of Shortage |          |        | YES                                    | NO | Degree of Shortage |          |        |
|                     |                                 |    | MILD               | MODERATE | SEVERE |  |    | MILD               | MODERATE | SEVERE |
| Orthopaedic Surgery |                                 | ■  |                    | ■        |        |  | ■  |                    | ■        |        |
| Palliative Care     |                                 | ■  |                    |          | ■      | ■                                      |    |                    |          |        |
| Psychiatry          |                                 | ■  |                    |          | ■      |  | ■  |                    |          | ■      |
| Psychotherapy       |                                 | ■  |                    | ■        |        |  | ■  |                    |          | ■      |
| Public Health       |                                 | ■  |                    |          | ■      |  | ■  |                    |          | ■      |
| Radiation Oncology  | ■                               |    |                    |          |        |  | ■  | ■                  |          |        |
| Pneumatology        |                                 | ■  | ■                  |          |        |  | ■  | ■                  |          |        |
| Rural Practice      |                                 | ■  |                    |          | ■      |  |    |                    |          |        |
| Sport Medicine      |                                 | ■  |                    | ■        |        | ■                                      | ■  |                    |          |        |
| Thoracic Surgery    |                                 | ■  | ■                  |          |        |  | ■  |                    | ■        |        |

## NOTES

1 Information was provided by a survey of the Specialty Sections of the Ontario Medical Association, September 1999

2 Responses were supported by data where available.

3 Of the OMA Sections surveyed (43), the following had not responded at the time of this report:

Allergy and Clinical Immunology, Cardiology, Group Practice, Occupational & Environmental Medicine, Neurology, Paediatrics, Physical Medicine & Rehabilitation, Plastic Surgery, Diagnostic Imaging, Urology, Gastroenterology, Reproductive Biology, Respiratory Disease, Critical Care Medicine,

Addiction Medicine, Haematology & Medical Oncology, and Vascular Surgery.

4 Definitions varied among respondents e.g. what one considers a "moderate" undersupply of physicians, another considers "severe."

## OMA Survey Summary

Ontario Physician Workforce Projections  
to 2004 and Alternate Resources  
Ontario Fact Finding Commission

| OMA SPECIALTY              | IS THE FIVE-YEAR PHYSICIAN<br>RESOURCE OUTLOOK ADEQUATE? |    |                    |          |        | IS THERE A ROLE FOR NON-PHYSICIAN<br>HEALTH CARE PROVIDERS? |    |
|----------------------------|--|----|--------------------|----------|--------|---|----|
|                            | YES  | NO | Degree of Shortage |          |        | YES   | NO |
|                            |  |    | MILD               | MODERATE | SEVERE |   |    |
| Anesthesiology             |  | ■  |                    |          | ■      | ■   |    |
| Cardiac Surgery            | ■  |    |                    |          |        | ■   |    |
| Chronic Pain               |  | ■  |                    |          | ■      | ■   |    |
| Dermatology                |  | ■  |                    | ■        |        | ■   |    |
| Emergency Medicine         | -  | -  |                    |          |        | ■   |    |
| Endocrinology & Metabolism |  | ■  |                    |          | ■      | ■   |    |
| General & Family Medicine  |  | ■  |                    |          | ■      | ■   |    |
| General Surgery            |  | ■  |                    | ■        |        |   | ■  |
| Geriatrics                 | -  | -  |                    |          |        | ■   |    |
| Internal Medicine          |  | ■  |                    | ■        |        | ■   |    |
| Laboratory Medicine        |  | ■  |                    |          | ■      | ■   |    |
| Neurosurgery               | -  | -  |                    |          |        |   | ■  |
| Nephrology                 |  | ■  |                    |          | ■      |   | ■  |
| Nuclear Medicine           |  | ■  |                    |          | ■      |   | ■  |
| Obstetrics & Gynaecology   |  | ■  |                    |          | ■      | ■   |    |
| Otolaryngology             |  | ■  |                    |          | ■      | ■   |    |
| Ophthalmology              |  | ■  |                    |          | ■      | ■   |    |

| OMA SPECIALTY       | IS THE FIVE-YEAR PHYSICIAN<br>RESOURCE OUTLOOK ADEQUATE? |    |                    |          |        | IS THERE A ROLE FOR NON-PHYSICIAN<br>HEALTH CARE PROVIDERS? |    |
|---------------------|--|----|--------------------|----------|--------|---|----|
|                     | YES  | NO | Degree of Shortage |          |        | YES   | NO |
|                     |  |    | MILD               | MODERATE | SEVERE |   |    |
| Orthopaedic Surgery |  | ■  |                    |          | ■      | ■   |    |
| Palliative Care     |  | ■  |                    |          | ■      | ■   |    |
| Psychiatry          |  | ■  |                    |          | ■      | ■   |    |
| Psychotherapy       |  | ■  |                    |          | ■      | ■   |    |
| Public Health       |  | ■  |                    | ■        |        | ■   |    |
| Radiation Oncology  |  | ■  |                    |          | ■      | ■   |    |
| Rheumatology        |  | ■  |                    | ■        |        |   | ■  |
| Rural Practice      |  | ■  |                    |          | ■      |   | ■  |
| Sport Medicine      | -  | -  |                    |          |        |   | ■  |
| Thoracic Surgery    | -  | -  |                    |          |        | ■   |    |

## NOTES

1 Information was provided by a survey of the Specialty Sections of the Ontario Medical Association, September 1999

2 Responses were supported by data where available.

3 Of the OMA Sections surveyed (43), the following had not responded at the time of this report:

Allergy and Clinical Immunology, Cardiology, Group Practice, Occupational & Environmental Medicine, Neurology, Paediatrics, Physical Medicine & Rehabilitation, Plastic Surgery, Diagnostic Imaging, Urology, Gastroenterology, Reproductive Biology, Respiratory Disease, Critical Care Medicine,

Addiction Medicine, Haematology & Medical Oncology, and Vascular Surgery.

4 Definitions varied among respondents e.g. what one considers a "moderate" undersupply of physicians, another considers "severe."

## National Survey Questionnaire

September 1999

- 1 In your opinion are the number of physicians in your specialty approximately appropriate for the current population needs?  
In Canada — Yes/No, Over / Undersupply – Mild, Moderate, Severe;  
In Ontario — Yes/No, Over/ Undersupply – Mild, Moderate, Severe; Don't know.
- 2 If there is a perceived lack of physicians to meet current societal needs, can you suggest any (semi) objective measures that might be used to verify and/or monitor this situation?
- 3 In your opinion will there be a sufficient number of physicians in your specialty to meet the needs of the population five years from now?  
In Canada — Yes/No, Over/Undersupply – Mild, Moderate, Severe;  
In Ontario — Yes/No, Over/Undersupply – Mild, Moderate, Severe; Don't know.
- 4 If there is currently a lack of physicians in your specialty, what are the most important reasons for this? I.e. supply or retention issues, changes in practice patterns, attitude, disease prevalence etc.
- 5 (A) What suggestions do you have to better match the supply of physicians in your specialty with societal needs - short and long term?  
  
(B) What action(s) would be required to implement your recommendations?
- 6 Is the geographic distribution of physicians in your specialty approximately appropriate to societal needs?  
Yes, Don't know, No — is maldistribution Mild, Moderate, Severe;  
Please explain.
- 7 Could non-physician health care providers (e.g. extended role nurses, midwives, medical technologists etc.) be deployed to provide some components of health care in your specialty?  
Yes/No — Explain.
- 8 Other suggestions or comments.

## RSPSC Survey Summary

Current National Physician Workforce:  
Canada Wide  
Ontario Fact Finding Commission

| (SUB) SPECIALTY               | IS THE CURRENT SUPPLY ADEQUATE? |    |                    |          |        | DOES DISTRIBUTION MEET SOCIETAL NEEDS? |    |                           |          |        |
|-------------------------------|---------------------------------|----|--------------------|----------|--------|--|----|---------------------------|----------|--------|
|                               | YES                             | NO | Degree of Shortage |          |        | YES                                    | NO | Degree of Maldistribution |          |        |
|                               |                                 |    | MILD               | MODERATE | SEVERE |  |    | MILD                      | MODERATE | SEVERE |
| Allergy & Clinical Immunology |                                 | ■  |                    | ■        |        |  | ■  |                           |          | ■      |
| Community Medicine            |                                 | ■  | ■                  |          |        |  | ■  |                           | ■        |        |
| Cardiovascular                |                                 | ■  |                    | ■        |        |  | ■  |                           |          |        |
| Chronic Pain                  |                                 | ■  |                    | ■        |        |  | ■  |                           |          | ■      |
| Dermatology                   |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Endocrinology & Metabolism    |                                 | ■  |                    | ■        |        | -                                      | -  |                           |          |        |
| General Internal Medicine     |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| General Surgery               |                                 | ■  |                    |          | ■      |  | ■  |                           |          | ■      |
| Geriatric Medicine            |                                 | ■  |                    |          | ■      |  | ■  |                           | ■        |        |
| Hematology                    |                                 | ■  |                    |          | ■      | -                                      | -  |                           |          |        |
| Medical Biochemistry          |                                 | ■  |                    |          | ■      |  | ■  |                           | ■        |        |
| Medical Oncology              |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Nephrology                    |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Neurology                     |                                 | ■  |                    | ■        |        |  | -  | -                         |          |        |
| Neuropathology                |                                 | ■  |                    |          | ■      |  | ■  |                           | ■        |        |
| Neuroradiology                |                                 | ■  | ■                  |          |        |  | ■  | ■                         |          |        |
| Nuclear Medicine              |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |

| (SUB) SPECIALTY                       | IS THE CURRENT SUPPLY ADEQUATE? |    |                    |          |        | DOES DISTRIBUTION MEET SOCIETAL NEEDS? |    |                           |          |        |
|---------------------------------------|---------------------------------|----|--------------------|----------|--------|--|----|---------------------------|----------|--------|
|                                       | YES                             | NO | Degree of Shortage |          |        | YES                                    | NO | Degree of Maldistribution |          |        |
|                                       |                                 |    | MILD               | MODERATE | SEVERE |  |    | MILD                      | MODERATE | SEVERE |
| Obstetrics & Gynecology               |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Occupational & Environmental Medicine |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Ophthalmology                         |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Orthopaedic                           |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Otolaryngology – Head & Neck          |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Pediatric                             |                                 | ■  | ■                  |          |        |  | ■  | ■                         |          |        |
| Pediatric Surgery                     | ■                               |    |                    |          |        |  | ■  | ■                         |          |        |
| Pathology                             |                                 | ■  |                    | ■        |        |  | ■  |                           | ■        |        |
| Physical Medicine & Rehabilitation    |                                 | ■  |                    | ■        |        | -                                      | -  |                           |          |        |
| Plastic Surgery                       |                                 | ■  | ■                  |          |        | -                                      | -  |                           |          |        |
| Radiation Oncology                    |                                 | ■  |                    |          | ■      |  | ■  | ■                         |          |        |
| Radiology                             |                                 | ■  |                    |          | ■      |  | ■  |                           |          | ■      |
| Rheumatology                          |                                 | ■  |                    | ■        |        |  | ■  |                           |          | ■      |
| Surgical Oncology                     |                                 | ■  |                    | ■        |        | -                                      | -  |                           |          |        |

## NOTES

1 Information was provided by a survey of the National Specialty Societies, September 1999

2 Responses were supported by data where available.

3 Of all the National Specialty and Other Societies surveyed (57), the following had not responded at the time of this report: Anesthesiology,

Cardiovascular and Thoracic Surgery, Clinical Pharmacology, Colon & Rectal Surgery, Critical Care, Emergency Medicine, Gastroenterology, Infectious Disease, Medical Genetics, Gynecologic Oncology, Psychiatry, Thoracic Medicine, Urology, Vascular Sugar Diabetes Association, Fertility & Andrology,

Surgery of the Hand, Hypertension Society, Study of the Liver, Child Neurology, Transplantation and Trauma Association.

4 Definitions varied among respondents e.g. what one considers a "moderate" undersupply of physicians, another considers "severe."



## RSPSC Survey Summary

### National Physician Workforce Projections to 2004 and Alternate Resources

### Ontario Physician Fact Finding Commission

| (SUB) SPECIALTY               | IS THE FIVE YEAR PHYSICIAN RESOURCE<br>OUTLOOK ADEQUATE? |    |                    |          |        | IS THERE A ROLE FOR NON-PHYSICIAN<br>HEALTH CARE PROVIDERS? |    |
|-------------------------------|--|----|--------------------|----------|--------|---|----|
|                               | YES  | NO | Degree of Shortage |          |        | YES   | NO |
|                               |  |    | MILD               | MODERATE | SEVERE |   |    |
| Allergy & Clinical Immunology |  | ■  |                    |          | ■      | ■   |    |
| Cardiovascular                |  | ■  |                    |          | ■      | ■   |    |
| Community Medicine            |  | ■  |                    | ■        |        |   | ■  |
| Dermatology                   |  | ■  |                    |          | ■      |   | ■  |
| Endocrinology & Metabolism    |  | ■  |                    | ■        |        | ■   |    |
| General Internal Medicine     |  | ■  |                    | ■        |        |   | ■  |
| General Surgery               |  | ■  |                    |          | ■      |   | ■  |
| Geriatric Medicine            |  | ■  |                    |          | ■      | ■   |    |
| Hematology                    |  | ■  |                    | ■        |        | -   | -  |
| Medical Biochemistry          |  | ■  |                    |          | ■      | ■   |    |
| Medical Oncology              |  | ■  |                    |          | ■      | ■   |    |
| Nephrology                    |  | ■  |                    | ■        |        | ■   |    |
| Neurology                     |  | ■  |                    | ■        |        | ■   |    |
| Neuropathology                |  | ■  |                    |          | ■      |   | ■  |
| Neuroradiolog                 |  | ■  | ■                  |          |        |   | ■  |
| Neurosurgery                  | -  | -  |                    |          |        | ■   |    |
| Nuclear Medicine              |  | ■  |                    |          | ■      |   | ■  |

| (SUB) SPECIALTY                       | IS THE FIVE YEAR PHYSICIAN RESOURCE OUTLOOK ADEQUATE? |    |                    |          |        | IS THERE A ROLE FOR NON-PHYSICIAN HEALTH CARE PROVIDERS? |    |
|---------------------------------------|---|----|--------------------|----------|--------|--|----|
|                                       | YES   | NO | Degree of Shortage |          |        | YES  | NO |
|                                       |   |    | MILD               | MODERATE | SEVERE |  |    |
| Obstetrics & Gynecology               |   | ■  |                    | ■        |        | ■  |    |
| Occupational & Environmental Medicine |   | ■  |                    | ■        |        | ■  |    |
| Ophthalmology                         |   | ■  |                    | ■        |        | ■  |    |
| Orthopaedic                           |   | ■  |                    | ■        |        | -  | -  |
| Otolaryngology - Head & Neck          |   | ■  |                    |          | ■      | ■  |    |
| Pediatric                             |   | ■  |                    | ■        |        | ■  |    |
| Pediatric Surgery                     | -   | -  |                    |          |        | ■  |    |
| Pathology                             |   | ■  |                    | ■        |        | ■  |    |
| Physical Medicine & Rehabilitation    |   | ■  |                    | ■        |        |  | ■  |
| Plastic Surgery                       |   | ■  |                    | ■        |        |  | ■  |
| Radiation Oncology                    |   | ■  |                    |          | ■      | ■  |    |
| Radiology                             |   | ■  |                    |          | ■      |  | ■  |
| Rheumatology                          |   | ■  |                    |          | ■      |  | ■  |
| Surgical Oncology                     |   | ■  |                    |          | ■      | ■  |    |

## NOTES

1 Information was provided by a survey of the National Specialty Societies, September 1999

2 Responses were supported by data where available.

3 Of all the National Specialty and Other Societies surveyed (57), the following had not responded at the time of this report: Anesthesiology,

Cardiovascular and Thoracic Surgery, Clinical Pharmacology, Colon & Rectal Surgery, Critical Care, Emergency Medicine, Gastroenterology, Infectious Disease, Medical Genetics, Gynecologic Oncology, Psychiatry, Thoracic Medicine, Urology, Vascular Sugar Diabetes Association, Fertility & Andrology,

Surgery of the Hand, Hypertension Society, Study of the Liver, Child Neurology, Transplantation and Trauma Association.

4 Definitions varied among respondents e.g. what one considers a "moderate" undersupply of physicians, another considers "severe."

## Overall Physician Survey Themes

### I Supply

With the exception of Cardiac Surgery, Radiation Oncology and Geriatric Medicine (these are discussed in the note at the end of this section), there was a unanimous opinion that there is a current shortage of physicians in Ontario ranging from moderate to severe. Shortages are deemed to be outside the AHSC catchment areas (i.e. small city communities and hospitals and rural areas).

Respondent data indicates that the current needs (normal turnover plus an accelerating rate of retirement) cannot be met by the medical education stream, re-entry and IMGs — the traditional sources of recruitment. There is a significant increase in advertised vacancies and the "age" of vacancies is increasing. Some sections are also dealing with an apparently unattractive specialty image (Lab. Medicine, Geriatrics, Palliative Care and Psychiatry) that is exacerbating recruitment and retention problems. Other report non-competitive remuneration as a barrier — Lab Medicine, Otolaryngology ("capped incomes, uncapped expenses"), Rural Practice and Sport Medicine.

There is widespread concern about the accelerating rate of retirement (not yet peaked) and that it will result in severe shortages, or alternatively, physicians practicing well beyond the normal retirement age. In some specialties, there is a shift from clinical to academic practice and other directions as they age, creating significant gaps in direct patient care resources.

Non-retirement related shifts are becoming a concern. While the exodus to the U.S. is not increasing, it continues to be a steady leak. This includes the emigration of established practitioners and non-returning Canadian residents and fellows. While restricted career progression opportunities is a recruitment/retention issue for some, clinical specialties such as Public Health are further squeezed by increasing career opportunities outside of the specialty in such areas as education, the pharmaceutical and consulting industries.

Lifestyle issues are frequently cited as causes for practice pattern changes. An unwillingness to work extended hours and on-call, with fewer resources, is common. Without attention, this trend will increase with the bulge of retirements occurring over the next 5 to 10 years. Many sections cite the increasing incidence and complexity of disease —

e.g. Endocrinology & Metabolism, Dermatology, Nephrology — as major factors in influencing the volume, intensity and complexity of practice. All sections state the concern in dealing with an aging patient population and increasing acuity, both hospital-based and inpatient. The de-listing of some services and the development of other processes not in the "OHIP envelope" may be adversely impacting the delivery of scheduled procedures. Practice examples were given by Plastic Surgery, Dermatology and Ophthalmology whereby the time and resources dedicated to non-OHIP procedures mean less time available for OHIP procedures.

The advancement of technology and treatment protocols, including the development of pharmaceuticals, are further influencing practice patterns, making some more complex and demanding. The resulting high overhead costs, limited remuneration and an unacceptably high income tax structure are creating unwelcome financial pressures which also serve to hinder recruitment and retention efforts.

All Sections cite the need to increase training positions from medical school, through to fellowship training. IMGs, traditionally a source of recruitment, are now restricted. Taken together, the current rate of physician production is insufficient to balance normal turnover — notwithstanding significant additional exits through the looming retirement "bulge". Many Specialties observe the increase in female practitioners whose availability is generally restricted to fewer practice and on-call hours.

There is also an overall trend amongst all practitioners toward reduced clinical practice related to factors such as:

- increase in the cost of malpractice insurance (esp. surgery)
- the tendency for older physicians to practice part time
- the increase in the number of part time teachers
- retired physicians maintaining small, part time practices
- lifestyle choices, esp. young physicians with families
- caps
- popularization of group practice
- optional career choices for some specialties e.g. research, administration, community and international projects.

Some newer specialties such as Sport Medicine, Gerontology and Palliative Care cite the need for more exposure to their fields during medical school. This is also shared by some more established specialties such as Lab. Medicine, Genetics and Rural Practice as a recruitment barrier. Ironically, in Geriatrics and Palliative Care, it tends to be the more mature practitioners who are attracted to, and who succeed in, these fields.

#### AUTHOR'S NOTES

- 1 Radiation Oncology states that as of September 1999 it has no shortage. It continues to state that there will be a severe shortage in five years. This is projected on the basis of 2 factors: first, the opening of two new Cancer Centres in the period 2002-2004 and

second, the retirement exit is not expected to begin in this specialty until around 2003 (slightly later than other specialties).

- 2 Cardiac Surgery states there is no current undersupply nor is one expected within five years. However, they also report a reliance on Nurse Practitioners to lessen the pressures from admissions and discharge planning.
- 3 Geriatric Medicine reports no current shortage. They do not know what the situation will be in five years. They believe there is a moderate maldistribution resulting from numbers of geriatricians working less than full time in some places.

## II Distribution

Many Sections indicate severe maldistribution, fewer problems in large urban centers where the AHSCs are located, with poor distribution in smaller communities (Community Hospitals), rural and remote areas. The formation of regional networks, increased support at the municipal level of government, increased training in rural medicine in medical school, licensure changes and more effective incentives are recommended to soften the distribution skews.

There were many comments on incentives, most relating to addressing the uneven distribution of physicians throughout the province. While there is agreement that the remuneration systems have resulted in inequities, recommendations for change are wide-ranging and include:

- social and economic incentives supported by a CPSO registry for underserved areas
- education incentives
- "envelope funding" — a payment plan based on work indicators
- protection and enhancement of the number of salaried positions
- recognition of complex/chronic patient care
- joint provincial/municipal funding e.g. Public Health
- negotiated salary scales to recognize regional differences and define degrees of "rurality" and "isolation"
- retention incentives
- revisit the UAP Program — maybe 4 years is not long enough.

## III Access Modeling

Suggested ways of measuring whether supply meets societal demand include waiting list lengths and times, constant review of data (and more accuracy), number and age of vacancies, definition of optimum workloads, quality standards, review of separate billing data for full time vs. part time practitioners, identification of primary physicians having difficulty making referrals, setting and resetting doc/pop ratios, dollars spent per patient (urban vs. rural).

## Links to the National Picture

The following survey responses from the Ontario Medical Association sectors indicated severe current/projected physician resources (through supply, distribution or both). These are briefly described below and linked to the responses from the sister National Societies where provided.

### **Endocrinology & Metabolism**

Both groups (Ontario and National) are consistent in stating the current undersupply ranges from moderate to severe with key factors being the need for more training positions and a serious maldistribution problem with half of all practitioners located in the Toronto region. The observation is made that the medical education system focus is towards research as opposed to clinical and that this is a contributing element to the shortage/distribution issues.

### **General & Family Practice**

This Ontario section reported a moderate undersupply and projected a severe shortage in the next five years. These, and a reported severe maldistribution, are confirmed by a series of consultations the Fact Finder conducted throughout Ontario. Unfortunately, there is no additional national survey information.

### **Laboratory Medicine**

Laboratory Medicine on Ontario reports a moderate undersupply across Ontario increasing to severe outside of the AHS centres i.e. Community Hospitals. Distribution is described as inappropriate. A severe shortage is predicted for five years, with the common contributors being decreased training spots and aging practitioners. In addition, Lab. Medicine is not competitive with regard to recruitment and retention because it is apparently seen as an "unattractive" specialty. They recommend the implementation of a regional support infrastructure of lab. specialists. Survey responses from the national levels of Medical Biochemistry and Pathology are consistent, citing moderate to severe undersupply and projections of severe undersupply over the next five years. Low visibility and the impact of lab. privatization are identified as influences in Medical Biochemistry Pathology cites Hematopathology and General pathology as being the most critical sub-specialties in terms of workforce management.

### **Nephrology**

The OMA Nephrology section describes it's undersupply as severe and continuing such for at least over the next five years due to the rapid rate of increase in end-stage renal disease, reduction in training positions and the aging of the physician population. The undersupply is described at the national level as moderate to severe with potential for a severe shortage over the next five years. The significant deficits in the North and smaller communities could be reduced significantly with regional nephrology care net-

works. The needs of smaller communities will increase greatly with the growing incidence and prevalence of renal disease and the evolution of nephrology into the community through local dialysis centres.

#### **Nuclear Medicine**

The OMA section reports a severe undersupply in Ontario, with a severe to moderate undersupply reported nationally. Both project a moderate to severe undersupply over the next five years in Ontario and Canada. Increased training positions and greater awareness of the specialty would alleviate the situation. Note: there is an opinion at the national level that "inappropriate (lack of?) training and standards have resulted in other inappropriately trained practitioners (radiologists and cardiologists) practicing nuclear medicine."

#### **Otolaryngology**

This OMA section assesses the current Ontario situation as severe, leading into a more critical five-year forecast, with 60% of the workforce now more than 60 years old. Distribution is skewed as only the areas immediately around the AHSCs are adequately served. Reasons cited are decreased training positions, tightened immigration and insufficient access to treatment facilities and diagnostic procedures. This is supported by the national survey response, adding that the 16-20 grads annually will never backfill the upcoming vacancies from retirement alone. Their recommendation is to adjust the training formula on a regular basis and to concentrate on the smaller communities.

#### **Ophthalmology**

Ophthalmology is deemed by its OMA section to be in severe short supply projected to continue at least over the next 5 years. The shortage is further aggravated by the evolution of sub-specialties and demand for new non-OHIP procedures. Changing practice patterns (aging population, development of sub-specialties, decrease in those practicing surgery) and high income tax rates and overhead costs are driving practitioners to more non-OHIP procedures and to the U.S.

This is confirmed by the response from the national group, which indicates a continuing moderate undersupply and maldistribution across Canada.

#### **Palliative Care**

Palliative Care cites a current severe undersupply continuing over the next five years. Distribution was not cited as an issue, rather, total numbers are the problem. There was no response nationally at the time of this report.



### **Psychiatry**

The OMA Psychiatry section reported a severe shortage of practitioners in Ontario and across Canada, continuing over the next five years. Also cited was a severe maldistribution with particular stress around the treatment of acute mental illness. The need for more training positions was stated as a key solution as well as an integrated clinical infrastructure including a CPSO roster for underserved areas. The National Society had not responded to the survey at the time of this report.

### **Radiation Oncology**

This section of the OMA responded that while the current supply is sufficient, there will be a severe shortage over the next five years due to the opening of 2 new treatment centres 2002-04 and retirements expected to begin to accelerate in 2003. A mild maldistribution was also cited. The National Society refers to a moderate-severe current shortage and a severe undersupply across Canada over the next five years. The national Society is indicating a moderate to severe current supply and the same five-year projection.

### **Rural Medicine**

The issues of Rural Practice have been articulated clearly throughout the Fact Finder consultations. Dr. Ian Park, OMA Section Chair, confirmed those issues in the survey response. He also added points especially the need for a rural physician/resident controlled restructuring task force with a specific focus on physicians. There is no national survey respondent.